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EDUCATIONAL REVIEW

JUNE, 1909

I

A PROFESSORIAL RECANTATION

All the world's a stage, and all the men and women merely players. Perhaps that the words of the myriad-minded poet might be fulfilled, the Professor himself had been guilty of a little acting.

Not on the real stage, of course. No, he had been guilty of representation more serious by far than this: he had acted a part on the literary stage, with results that proved both surprizing and disconcerting. Literary dramatics *are* something less than certain; for there the audience has no play-bill, and your player is often believed to mean not only what he says, but a great deal more—or a great deal less; or the illusion he is trying to create does not succeed at all, and what he thinks he is making to resemble a cloud appears to the eye of the spectator as very like a camel, or a weasel.

The Professor had not intended to deceive any living soul. He had made up before the literary foot-lights as a teacher of English literature, supposing that no one would fail to see thru his thin disguise. That was to be the humor of it: it might be mildly amusing for readers to detect the ass in the lion's skin; for the Professor *was* a classicist, and a teacher of Latin.

But the illusion had seemingly been complete, at least outside the circle of his acquaintance, and he had been writ down, not an ass, but a lion. After one or two appearances, certain of the multitude began to inquire who the professor

of English was who wrote those things. The tangled web of deception could have been no greater if he had really practised to deceive.

He indeed soon came to understand why it had been taken for granted that he was not a classicist: a letter from a hitherto unknown classical colleague had let him into that secret. "It really seems so strange for any of us classical people to be doing anything of this kind," wrote the gentleman, "that I pinched myself to be sure I was awake. . . . It was eleven o'clock and I was tired, but after I got started I read it thru, and have advised my friends to do the same." When the Professor came to think of it in the light of lectures and dissertations, and the average printed utterance of classical professors, there *was* something strange in the appearance, over a classicist's name, of an article which even a single person could read thru to the end, and which he was not afraid to recommend to his friends.

But if the Professor found his readers blameless in this respect, he could not so readily absolve them from the guilt of having been too easily deluded into thinking him a professor of English literature. If he had really wanted them to believe that, he would not have gone about it by manifesting a familiarity with Milton, Shakspere, and the Bible. That might in the long ago have been the sign by which professors of English literature were known, but not now. No, he would have dropt a few hints on the Celtic question—just enough to make it appear that he had read the majority of the 4,000 dissertations and articles on the subject—and scattered thru his article a few references to the sources of Beowulf and the commentaries of Saxo-Grammaticus, and let it be known that his main interest and his real mission as a scholar was the determination of the number and size of the knot-holes in the stage of Shakspere and a solution of the question as to whether their distribution was the result of nature pure and simple, or of rules of dramatic art formulated by Aristophanes, practised by Menander, and transmitted by Terence.

But this unintentional delusion of the public, tho regret-

able enough because it defeated his humorous intent, was not the very head and front of the Professor's offense. He had deceived his readers in general, and his fellow professors in particular, in a more serious way.

Here again, he had really intended nothing but a little mild humor; but he felt guilty, nevertheless, and the sting of conscience was lessened only by the reflection that he had but allowed them to be deceived, and had not actually compelled them to be. After all, they ought to have known better than to take a professor's word for anything outside the domain of scholarship, especially if it involved the practical. Let them look to him for information on the comparative frequency of the letter S under Cæsar and Septimius Severus, but when it came to *common* sense, let them go to a professor of mathematics, or economics, or world politics, or education, or some one else who was accustomed to deal with hard facts.

What the Professor had really done was to make up before his audience as a hard-working teacher with a large family of small children, engaged in a desperate struggle to keep the wolf from the door. His literary disguise had been merely incidental.

In other words, he had been publishing a few thoughts on the subject of salaries, and, without really intending it, had proven to the satisfaction of all members of the teaching profession that they were pitifully inadequate and unjust—the salaries, of course—and that they ought to be made to meet the requirements of the calling. Again I mean the salaries. It had been no part of his purpose to convince his fellow-professors of what he felt sure they had no need to be told, or to confirm them in the conviction that they were in a bad way. He had merely wisht to laugh them into good-humored endurance of their lot, or perhaps into a belief that their lot was not so bad, after all. If any one at all was to take him literally and seriously, he wisht it might have been the lay public, especially legislators, trustees, regents, and beneficent billionaires.

But his dramatics had suffered no such fortunate accident

as that; if regents and billionaires had been convinced, they had at least done nothing rash in the enthusiasm of conviction, but had wisely kept them in the rear of their affection, out of the shot and danger of desire. And as for the general public, if it had drawn any conclusion at all, it was to the effect that college professors as a class, and the Professor in particular, were a threadbare and squalid sort of people, who were much to be pitied because they hadn't chosen a lucrative occupation.

On the contrary, by his little act of deception he had been guilty of affecting those only whom he did not wish to take him seriously. His impersonation of the poverty-pinched professor had left in its train a measure of discontent among at least some of his colleagues.

For example, one had written him in a strain of mournful congratulation saying that his depiction was all too true, but that he supposed nothing could be done about it—*durum, sed levius fit patientia!* Another regretted that he had not chosen a different profession, and exprest his conviction that if the Professor were really possest of the red blood and vigor indicated by his publications, and were still young, he could easily find some occupation in which he might enjoy real authority and get an adequate salary.

As his correspondent was not specific, the Professor was left to the dark of conjecture. He thought over all the powerful and salaried men of his acquaintance; brokers, lawyers, promoters, politicians, plumbers, railway conductors, hotel clerks, and football coaches. He didn't really envy any one of them but the last, who surely had both salary and power to a superlative degree, and it was impossible for the Professor to adopt his calling for the reason that his own faith in athletics was impaired by the insane and inconvenient belief that the main purpose of universities and colleges was intellectual—"the dissimulation of knowledge," as one of his co-educational students wrote.

Still another had written the Professor that it seemed to him that "any one who could write so pithy and racy an article on so dry a subject as The College Professor would

do well to leave his Latin to the dead, and devote himself to literary work—success in that line of work meaning good clothes to cremate." This had caused the Professor to smile for weeks.

The Professor saw now that his policy had been wrong: he ought to have spoken unequivocally, and not to have jested on a serious subject; he ought to have compared men in his own calling with masons and drainmen rather than with bankers and literary celebrities; and he ought to have been the spokesman, not of that part of his brethren who were really poor, but of those who were rich. His guilt was indeed great. The winter of discontent was already long enough—and what malefactor to be compared with him who lengthened or deepened it by ever so little!

For there really were college professors who were rich, and chief among them was the Professor himself. There! don't get the idea that he had married an heiress or a vaudeville queen, or that his investments in Central American Rubber and Melanesian Mining Stock had actually yielded the results promised by his faculty friend who was agent for them, or that his shares in the Planotelophonoscope Project had brought forth an hundredfold, or that his savings had accumulated until he had a fortune. He had long since been calculating the matter of savings, and with the aid of his friend the professor of advanced calculus had arrived at the conclusion that if he persevered in laying by at the present rate until he was eighty-two he would have enough to support himself and his family for a period of a year and three months.

And as to the other projects—well, ask the first professor you meet how they turned out. Every one knows about them, except the impractical, old-fashioned, and criminally negligent few who can not be brought to take advantage of golden opportunities to do business in a large way.

No, the Professor had no more money than most professors have. He was just as poor as most of them are. And yet he was not poor. I know you will find it hard to believe me, but you must learn not to judge a man's income

merely by his salary. If the Professor's income had been nothing but the amount of salary he received, he would have been in real truth as poor as he was supposed to be by his rich friends. But the fact was that, tho very few of the general public realized it, and not a great many of his colleagues, he was in comparative affluence. He had revenues invisible as well as those that could be seen of men.

I see your covert smile. The very moment I mentioned revenues invisible, you began to think of Graft, and you have been thinking ever since of the sale of syllabuses and textbooks to students at extortionate prices, or of secret and treacherous understandings with travel bureaus, book concerns, life insurance companies, and all the various promoters who manifest benevolent solicitude for the welfare of college professors, and who are willing to pay for the privilege of doing them good.

Well, let us confess that there were certain benefits which came to the Professor along with his occupation. But let us not call them by so harsh a name as graft. Graft involves at least the pretense of secrecy, and sometimes a measure of opprobrium if it becomes known; but the Professor had no secrets; he told every one of his transactions, students and legislators included—and they were so far from imputing it to him a fault that all without exception greeted his revelations with the same mild smile of indulgence. His naïve ideas as to the nature of wealth were really amusing.

No, graft wasn't the name for it. Graft that is neither secret nor profitable never gets before the grand jury, never arouses resentment or envy, and never affords the state's attorney opportunity to rise in the political scale, and is not graft at all. Let us rather call the Professor's bonanza by the mild name of Perquisites. There is a difference between the two: we say Perquisites when you take what is expressly allowed you; Graft when you take everything not expressly forbidden, and as much of what is forbidden as you are reasonably sure will not be noticed.

A Professor with Perquisites? Certainly. For example, professors are by common consent allowed the covers and

unused leaves of their students' examination books: a Perquisite of no mean value to a professor who engages in literary activity, or conducts an extensive correspondence, or has a half-dozen children in the grades. In some institutions of especially generous disposition, too, a common stenographer and type-writer is employed, so that when a professor has syllabuses or examinations to strike off, or correspondence on behalf of the institution, he may get them done without expenditure of his own time and stationery; and sometimes, if he is ingenious, he may get a little of his private work thru in this way.

These Perquisites the Professor enjoyed. They were not very great in comparison with those enjoyed by many of his colleagues, it is true. He sometimes envied the professors of engineering and geology, who had long pleasure trips with their students to shops and mines, and came back with nuggets of real gold; or the professor of domestic science, who was reputed to have prior claim to the product of the experimental cuisine; or the professor of chemistry, who as analyst for the pure food commission was entitled to the partially despoiled packages of food and medicine and bottled goods of various kinds which lay strewn in the wake of his activities. What opportunities for a professor who had six children and the expensive tastes of a sometime student in a German university!

When he read of the fines resulting from analyses, however, and reflected that the art of cooking—from observation and hearsay the Professor had become convinced that, as taught in college, it *was* an art rather than a science—was still in its infancy, he reconciled himself to his lot. After all, it was just as well to pay the baker more, and economize on the doctor—and to make a virtue of necessity in the case of the bottles. That kind of virtue, he knew, was not of the highest quality, but a college professor couldn't afford to be too particular.

And besides (here we are coming to something at last), the Professor had his own peculiar Perquisite—one which was immeasurably more valuable than those of all the rest

put together. It was this which constituted the vast income of which I have spoken.

What was it? Simply this: he was entitled to the interest on the funds which he handled in his profession. Of course I don't mean funds in actual money. The state would never have entrusted the keeping of such possessions as that even to a professor in the school of economics or commerce, to say nothing of a professor of ancient classics. Let their subjects be ever so practical, you couldn't get the world to dissociate professors from the impractical. The children of the world are wiser than the children of light. You may hear a chiropodist, or a slight-of-hand performer, or a snake-swallower, called a professor, but who ever heard of the name being applied to a banker, or a broker, or a captain of industry?

But there are funds which are not financial, and there are treasure houses other than banks. Wise and beautiful thoughts, stored in the treasure houses of literature and the arts, also constitute wealth. The Golden Treasury is no mere figure of speech. Literary riches were the funds which the professor had in keeping. The banks of ancient Rome and Athens contained his principal trusts, but he had extensive deposits in many other banks as well; and his duty was the administration of them all in the interest of the sons and daughters of the commonwealth.

Now that you know the nature of the Professor's trust, you will be better able to understand his good fortune. His first great Perquisite was the pleasure of handling it. His administrative duties gave him the greatest delight.

In other words, the Professor's duty was to minister to his pleasure; he enjoyed his work; and since everybody knows—at least every one who has read *Tom Sawyer*—that work which is enjoyable is not work at all, but play, it is perfectly plain that the Professor didn't have to work for a livelihood. He simply drew his salary, and went on with the fun of living. Perhaps he did not go so far as to say that he would gladly have paid for the privilege of doing what he was salaried to do (for where could he have raised the money? and no board of regents or trustees would have accepted his kind of cur-

rency); but he agreed on the whole with a faculty friend who had once said to him, under strictest oath of secrecy, after a failure to win promotion: "As a matter of fact, I'd do just what I am doing for a great deal less: I like it so well; but I suppose we'll have to appear dissatisfied, or they'll never raise us."

The Professor's philosophy told him that the object of a salary was comfort, content, satisfaction with life. If this were true, and if the nature of his duties also brought him comfort, content, and satisfaction with life, it seemed to him that it was only fair to calculate his whole income by adding together his salary *and* his satisfaction. Counting the former at $1,500, and the latter at, say, $13,500, he ascertained that his real salary amounted to $15,000—just the figure which he had often heard remarked on as appropriate for a man with five children and no very expensive tastes. He was of course aware that to count satisfaction as a part of salary (unless you happened to be the employer) was considered very sentimental and unbusiness-like, or rather that it was not considered at all; and that most men chose their occupations with eye single to the currency value of their salaries, convinced that satisfaction was something that could be bought, and bought at any time.

And so the Professor was not so very much surprized when his first commencement address, entitled *The fun of working,* aroused more wonderment than enthusiasm; or when his sophomores smiled with wise incredulity at the end of a little sermon like this: Young men, don't choose a calling merely because your friends are choosing it, or because your father chose it—tho his word should be worth a great deal to you —or because you are advised to by those who have themselves adopted it; and, above all, don't choose it merely because report says that much money is to be made in it. Choose rather that which you will like to do; for the object of choosing any calling is to secure a reasonable amount of happiness by rendering a reasonable amount of service to the world. The problem is not to fit yourselves for the best paying profession, but to find out the profession for which nature has already

fitted you. If you do this, life will be filled with pleasurable activity; if not, all your voyage will be bound in shallows and in miseries. Nothing can recompense a man for doing what he hates, or a community for the plague-spot of a discontented and grumbling citizen.

But the Professor wasn't disheartened, for he had the warrant of the inner man; and besides, he knew you couldn't tell a sophomore much about life. And he knew, too, that most sermons had a greater effect upon the preacher than upon the audience.

So much for the Professor's Perquisite in the way of pleasurable performance of duty. He sometimes felt ashamed to look his friends in the face. Tho they did receive larger salaries and work fewer hours, their work was really laborious. They had need of costly vacation trips to restore their spirits; while his main trouble was that he could not work more hours in the day, and his chief use for vacation the doing of more of his chosen work.

But the Professor's duty did more than minister to his mere pleasure. It brought him incredible profit. All the interest of the vast capital in his hands accrued to him. Nay, we may say rather that the Professor was joint heir with all the world to the capital itself. All that he could appropriate was his own for the term of his life; and, more than that, such was its nature that he could possess it all without in the least interfering with the rights of any other claimant. And still further, it was not only his privilege to appropriate it, but he *had* to appropriate it, unless he was to prove recreant to his trust; for only by possessing it himself could he help his students to possess it.

Hence it was that the Professor had already amassed a great fortune, and hence it was that year by year he grew wealthier and wealthier. He was rich in acquaintance with the world's great scenes and the world's great men. His duties called him to survey mankind from China to Peru, and he had spent years in communion with the great spirits of all time. He "carried the keys of the world's library in his pocket." All his pleasures were made more vivid because

of his familiarity with crystallized human experience in literature, all his sorrows made less keen, all his sympathies broadened, all his judgments liberalized, all his resolutions strengthened, all his aspirations heightened, all his inspirations deepened. He saw the essence of things behind their material form, and dwelt in that realm of the glorified real which men call the ideal.

Yes, some of you are saying, these things may be all right in their way, but there is nothing in them. You can't convert an aspiration into hard cash, and literature may be ever so pleasant, but you can't live on the love of it, to say nothing of supporting a growing family and contributing to the support of your Life Insurance President.

Very well, since you must be appealed to on that ground, I will go on to tell you how the Professor's love of literature really affected the size of his salary. Not that it actually increased the number of dollars he received; I only mean that it diminished his expenses—which is much the same when it comes to the question of surplus or deficit. I mean that where his friends in other occupations made a dollar satisfy one desire, he made it satisfy two.

For, besides consolation, inspiration, and joy, the Professor had another Perquisite. He had appropriated from his legacy of literature an Aladdin's lamp. It was an ancient one: Solomon had possest it, and Horace, and both had recommended it. It was the lamp of philosophy; not the kind of philosophy that lives insphered in regions mild of calm and serene air, but that mingles in the smoke and stir of this dim spot which men call earth—philosophy of life, which differs from the other about as much as religion differs from theology, or real charity from humanitarianism, or education from pedagogy, or culture from either of these latter.

The Professor knew that riches depended not so much upon outward circumstances as upon the inward attitude. He knew that there was that made himself rich, and yet had nothing. He believed the Wise Man's precept that as a man thought in his heart, so was he; that the heart must be kept with all diligence, for out of it were the issues of life.

So much had Solomon inscribed on the lamp. Horace had added that it was useless to increase wealth if desire was to keep pace with acquisition; that the addition of Libya to remote Gades availed nothing to one who had not learned the secret of curbing a greedy spirit; that those who wanted much also lacked much, and that it was well with him to whom God gave with sparing hand what was enough.

The Professor was old enough, and wise enough—you need both age and wisdom if you are to understand the really great lessons of life—to appreciate the truth of these (to most men) dark sayings, and sensible enough to realize it in actual practise.

Of course he saw his friends in possession of many things which he himself could have enjoyed. They had roomier houses, larger libraries than his, kept automobiles and horses and carriages, sailed yachts, wore raiment twice dyed in Tyrian purple, maintained summer residences in distant parts of the country, always had the last novel on their tables, made long journeys to the metropolis for their drama and opera, ate every fruit out of its season and treated their dyspepsia by correspondence with high-priced quacks thousands of miles distant, employed a cook, a chambermaid, and a footman, kept a nurse for every child, never asked questions about the monthly bills, contributed heavily to rummage sales, and were not driven to bankruptcy by excessive alimony.

But the Professor saw that for him the indulgence in all or any of these things would mean thralldom, and that life would be a round of sacrifice at the shrine of the unpaid bill. And then, the real objection to that sort of life was that possession did not mean satisfaction, after all, for he had slowly learnt the lesson that the final satisfaction of wants and the realization of ideals were impossible, that life was an ascending scale of desires. Happiness depended upon what one wanted, rather than on what one had. His friend with the $50,000 house had only a few days before complained of lack of space in the identical words which the Professor himself was wont to employ when *he* was in the mood of complaint about his house, which was anything but a mansion,

and was rented at that; and his friend's family was less numerous than his own. His neighbor with the $25 rod and reel cursed the luck in exactly the same spirit, if not in the same words (*di deæque avertant*), in which the Professor did, and by way of remedy invested in more tackle. The Professor went on fishing with his own unpretentious outfit; and when in moments of stress his Waltonian calm forsook him, and rod and reel went into the depths of the lake and joined the Seven Thousand of Yesterday, he consoled himself with the thought that their intrinsic value was now, even if it had not been before, a matter of indifference.

His neighbor with the canoe wanted a launch, his other neighbor who had a launch was consumed with longing for a yacht, and a third who had sailed a yacht for one season would hear of nothing but a house-boat. The Professor went on using his rowboat, turned a deaf ear to the Siren call, well knowing that his enjoyment would total as much as theirs, and more. Of what avail to go on satisfying desires, only to find that satisfaction begot other desires?

> Naught's had, all's spent,
> When our desire is got without content.

True, the Professor saw that if he had possest unlimited resources and no sense of moral obligation, much experience and much vivid pleasure might have been his. He could have gone from satisfaction to satisfaction, and could even have studied to create desires in order to experience the pleasure of gratifying them, as many of his countrymen did. But it was plain enough that with such a course would come also vanity and vexation of spirit, and corruption of the real fountains of happiness. No satisfaction worthy of the name would result from it. The full soul loathed an honeycomb; but to the hungry every bitter thing was sweet. Of all persons, the most to be disliked and the most to be pitied was the blasé, the burnt-out being who found nothing new under the sun, whose only way of breaking the dead monotony of existence was to roll with pleasure in a sensual sty. No, the simple life was better; as well in his own as in Juvenal's time, *voluptates commendat rarior usus.*

For example, his devotion to his old boat—*præsidio biremis scaphæ*—was rewarded by the coursing of red blood thru his veins as he rowed it, and when the winds and waves, old wranglers, did their worst, he did not have to resort to prayers lest his yacht or launch add to the riches of the avaricious sea. If he was without the thrill of conscious power over the inanimate and mist the excitement of rapid career thru the waves, he enjoyed quite as much the contemplatively happy evening trips with his family and friends, the campfire and rude repast on the distant shore in sight of the city, and the quiet row home when night's candles were lighted in the sky. If he did not set his table with the rarities of far-away climes, he enjoyed still more the unbought feast from the little garden whose soil he turned himself. He could not afford the luxury of cut flowers in winter, but he did not miss the prime to mark

> How sprung his plants, and how the bee
> Sat on the bloom extracting liquid sweet.

If he could not go to the Georgian Bay, or to the seashore, or to lands across the ocean, he could enjoy still more than those who did so the beautiful environment in which he was placed.

For the Professor lived in a spot whose praises could be fitly sung only by a Catullus or a Horace. That little corner of earth smiled on him beyond all others. He never lookt across the expanse of Mendota from Observatory Hill without thinking of Master Izaak Walton: "I tell you, scholar, when I sat last on this primrose bank, and looked down these meadows, I thought of them, as Charles the Emperor did of the city of Florence, 'That they were too pleasant to be looked on but only on holidays.'" Among all his Perquisites this was not far from being the greatest, and his friends who for a few hundred dollars were persuaded to go to live amid the smoke and din of a large university city were agreed with him—when it was too late.

What was the need of a vast variety? If the soul were kept in health, it needed no more variety of scene than the

body needed variety of food if *it* were in health. Few foods were necessary, or even acceptable, to the unspoiled palate, for

> That which is not good is not delicious
> To a well-governed and wise appetite.

And in the same way there were few elements in nature which were necessary for the delight of the soul. Why Europe for a vacation? Could an exile from his own country fly from himself also? Did any one change anything but the sky when he went to the seashore? Did not Fear and Threats sit like twin brethren on the sailyards of the yacht, and did not Black Care climb up onto the house-boat, and squeeze into the automobile, and sit on the donkey that carried the tourist up the Drachenfels?

The conclusion of the whole matter was that if he couldn't have what he liked without bowing under a great burden or losing the art of real enjoyment, he would like what he had, and let it go at that. If increase in worldly wealth meant more pleasure, it meant also more care. Better was an handful with quietness than both the hands full with travail and vexation of spirit. He would take the advice of Carlyle and divide the denominator of the fraction of life, instead of multiplying the numerator. If a man got meat and clothes, what mattered it whether he had £10,000, or £10,000,000, or £70 a year. He could get meat and clothes for that; and he would find very little difference intrinsically, if he were a wise man.

How charming was divine philosophy! Surely this kind of philosophy *was* the guide of life. The merchandise of it was better than the merchandise of silver, and the gain thereof than fine gold. When Hygeia smiled on him—and by Hygeia the Professor meant, not dieting and the Nogoda Method, but *mens sana in corpore sano*—he asked for nothing more than he had. *Hoc erat in votis:* he was happy in his little Sabine salary.

So you see that, after all, the Professor led a life of luxury, and was fortunate beyond others in his choice of occupation. His financial income, thanks to his philosophy, was ample for his wants; his life was filled with peace and pleasantness; his work counted at the same time for delight and for gain; he

was full of the zest of anticipation and the satisfaction of realization; he was in the society of the best and the greatest who had existed either in reality or in the imagination of the idealist. And all this was because of his Perquisites, of whose substantial nature men in other professions had so little appreciation that it never occurred to them to envy him. Without them, he would have been as poor as winter; with them he was as rich as Crœsus, as the saying ran in the pre-Petroleum period.

When a man takes this view of the relations between money and happiness, it is hard to starve him. You can see how it was that the Professor's little salary sufficed, and how he never got so far behind in the long vacation as not to be able to catch up by March of the following year. And you can understand why, when he sat under the Thanksgiving sermon and listened to the long enumeration of the woes of the world which was designed to make him happy by contrast, he succeeded in realizing that there were a great many classes of people who were even below him in the scale of wretchedness, and why he felt guilty for being so happy and prosperous, and gave away, under the stress of conviction, money that should have gone to the decent clothing of his own family. And you can understand, too, why he was conscience-stricken to think that he had unintentionally fostered the spirit of discontent in the hearts of his brethren rather than that of wise and happy acquiescence. He wisht that they were all even as he, without these bonds.

Bonds? Of course. The Professor was human, and sometimes fell short of the glory of perfect contentment. There were days when he was not quite convinced that a little more money wouldn't do him considerable good. Not that he wanted it for himself; he simply wanted to improve what he had learned from grave sociological friends to call his environment. In other words, the Professor was not living alone unto himself. He had various creditors, and he had a family; and neither had yet discovered as fully as he could have wisht the economic phases of philosophy. Whatever his own frame of mind, he had to provide for the unphilo-

sophic wants of his family circle. His Perquisites were not negotiable.

And then, the Professor himself, truth compels me to say, was not absolutely secure in his citadel. Hygeia was not always propitious. Sometimes his sleep was not aery light, from pure digestion bred, and he was not proof against moods. At such times he rubbed Aladdin's lamp long and earnestly—and apprehensively—before the genie appeared. Of course you know that philosophy operates best when the philosopher is in a healthy frame of mind and body, and doesn't really need it—something like bargains: you are not in position to make a really good one unless you are also perfectly able to get along without it. There were times when the Professor felt that it would have been a vivid enjoyment, and one which would not have hurt him irretrievably, if he could have had a little more money than he absolutely needed. Sometimes, when both his liver and his imagination were disordered, he was dangerously near being tempted to wish that he could have about two hundred dollars—yes, two hundred and fifty, to make perfectly sure—added to his salary: just enough to make his study warm and comfortable while he was laboring on the *magnum opus* which was to confer immortal fame upon his institution, enough to relieve him of the care and worry incident to minute economy, to increase his library, to provide against sickness and surgery in his family, to quiet his apprehensions of unseemly old age and helplessness and changes of fashion in millinery and dressmaking, and to make possible a luxury or two—a real tailor-made suit of clothes, a cook-box and a safety razor, a few dollars for tickets to the Charity Ball to quiet his conscience for not having specialized in sociology, a carriage ride for the family two or three times a year, the proper advertisement of his marriageable daughters, a trip abroad before he died, such novels of the month as were going to endure as long as the English tongue should be spoken, a pianola or a Victor Phonograph——

But *Quo, Musa, tendis?* Desist, you jade. Leave off referring to the pleasures of the gods!

Grant Showerman

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II

WHEN THE SCHOOLMAN FAILS

June is the month when they kill schoolmasters. Hesiod and Spenser have left this out of their Shepherd's Calendars. Educational journals say little of it; papers at conventions avoid it. Henry van Dyke has written upon "What to do when lost in the woods." May we not have a syllabus of first aid to the discharged?

When the schoolman begins to see that the influences working against him are of the sort and strength that have landed good soldiers lame and sore and heart-sick, outside the breastworks, he needs words of consolation. I would like to furnish some. I would like to be able to compose a few pages that a pounded brother might turn to and find salve between the leaves; a few prescriptions that you might deem worth laying by in your medicine closet against the time which, if history repeats itself, is a possibility for all of us.

For the professional life of the American schoolmaster is beset by uncertainty. Except in very few cities we are laboriously building houses of cards which, no matter how much care and effort we have expended, we may tomorrow surmount with one careless addition that falls flat and tumbles the whole structure to ruin.

Extended discussion of the influence of schoolmen's dismissals affecting education may be found in current essays on tenure: some men urging for enactments for permanency or fair trial, others contending that facility of discharge is necessary to get rid of the unfit. This paper is for the schoolman himself and for the solace of his own mortification and pain.

He needs consolatory suggestion, for he lacks a daily discipline that others have. He has little practise in sustaining frequent defeat. His trouble comes in a great wave, uproot-

ing his friendships, his attachments to a familiar locality, his plans and hopes. It compels him, weakened and stunned, to gather up his household and to grope about for an opportunity to begin anew. We have our own way in so many little things that we acquire an unnatural appetite for victory. We lack the buffets and the knockouts that fighting men or lawyers, or traders, or those that deal with equals experience to toughen their fiber. It would be better if we learned to yield more gracefully in unimportant matters. We might well get into the habit of asking for more things, as Diogenes did, for the purpose of schooling ourselves in disappointment. It may be a bad thing for a schoolmaster to have an unbroken record of success and support. Perhaps when he finds some superior who dislikes him he ought to cross that person occasionally for the discipline of being turned down. It would prevent so low a drop of one's spirits when a great calamity comes. I know of a case of a new principal who prepared a luncheon for a visiting superintendent. The superintendent said, " I am not here for pleasantries. I came to see work." The schoolman moped and suffered for weeks afterward. It made a congestion in his throat, set him to tossing at night, and gave him a trembling of the hands. Lawyers and men in business would scoff at such sensitiveness. It is not uncommon among schoolmasters. Perhaps you know the effects of continued mental distress. A discomfort in the pit of the stomach (the ancients surmised the seat of the spirit was there), a dryness of mouth, a wandering of the mind thru the dark places of the future, conjuring into them many indefinite dreads of criticism, lack of sympathy, continued condemnation, and final dismissal. When you are not used to disappointment, you overdo your distress. Instead of awakening you to correction, it paralyzes every faculty except that of seeing black. A daily paper then saddens you with its parade of accidents, losses, weaknesses, dishonesties, hardness of heart, quarrels, crimes. Life seems cold and cruel. The wretchedness and dirt of streets, the stridency of noise, the ugliness of faces intensify themselves as never before. Then is the time to make use of such antidotes as are ready to

hand. To sit in front of children who are singing, to join with them, to feed the eyes upon their faces, to entertain them with interesting and profitable talk, to feel that they are liking you and you are loving them; all this is said by those who try it to be specific.

As old as literature itself, is the advice to read. Scott found solace in the trashiest novels, Stevenson's father found it in the New Testament. Howell Harris, that phenomenal preacher who regenerated drunken and dissolute Wales in the days of John Wesley, "would fall into such dejection accompanied by bodily weakness as to be unable to stand, but after the perusal of the Scripture and Cotton's *Covenant of grace*, instantaneous strength would come from it as from food when hungry and from fire when cold." The pure and gentle Kingsley recommended to a curate suffering from dejection, that he read *Rabelais*. Lecky thought most of the books of consolation full of sounding generalities impotent in the face of real sorrow. Others have not found it so. They name dozens of books that are sovereign tonics for low spirits. Such are Seneca, Aurelius, Epictetus, Carlyle and Emerson, the virile Whitman, and a consoling book of essays by a schoolmaster, Daniel Brinton, entitled *The pursuit of happiness*. Reading of the grief of others, of Hawthorne's wondering whether life may be worth the trouble of carrying it further, of Keats's sounding the depths of misery, of Rousseau's Father Cato dying of a broken heart—perusal of such literature while one is down in spirits arouses most temperaments. Reading of one's previous depression shows us, according to Emerson, how absurd it is to rate our present distress as the worst we ever had. One's own diary may be an evener of the spirits.

Dr. Hutchinson advises vaudeville to dispel low spirits. That is what these shows are for. The feature of them that cheers up a schoolmaster, especially, is that so many of the performers know what they want to do and know how to do it. Your juggler or acrobat finishes his stunt with adequate completeness and doesn't talk about it. If you have scruples about vaudeville you can get some of the same freshening by

watching the men in the rolling mills run the red-hot iron rods out of the machine, or glass blowers make window panes. Any deft, successful work, if you watch it when you are deprest, suggests how well worth while it is to try your own again. A good ball-game or a lively lacrosse match or any trial of skill has this refreshing element in it. Ruskin's doctor took him to the theater to see the beautiful Flora Sanderson dance, and says it improved him remarkably. Longfellow, when as a teacher he didn't get along very well with his superiors, used to find notable relief from his distress in music. Jerome K. Jerome's book is on the solace of the pipe. Luther Gulick cured business men suffering from financial reverses by putting them at setting-up exercises. The Chicago *Record-Herald* man puts it this way:

> "Cheer up you that in sadness sit
> Robbed of the hope you had of rising,
> The trouble with you probably is
> You need more exercising."

Grover Cleveland cured blues by fishing; Thomas Jefferson, by gardening; Oliver Optic, by sailing a boat; Dickens, by walking London streets; Thackeray, by drawing pictures; Pitt, by playing games with children; Mayor Strong, by drinking tea; Herbert Spencer, by lively dinner parties; Andrew D. White, by climbing a hill; Gladstone, by cutting down trees; Roosevelt, by a horseback ride; John Boyle O'Reilly, by a good swim; Homer, by sitting on the seashore. Kipling would have you get out among the woods and fields. "The country, for the wounded heart," runs the old proverb. The gentle Benson, however, wonders whether there is a *vis medicatrix* in nature which can heal our grief and console our anxieties. But wise men have said and poets sung of the consoling power of nature, how its tranquil beauty steals away the sharpness ere we are aware. Emerson went daily to the woods, by preference in the morning and at sunset.

Case 119. Mr. T. H., an Illinois teacher, brooding over a series of unfriendly criticisms by his principal, resolved to take his own life. He conceived the idea of drowning himself in a deep place in a forest river that he had made familiar to

himself while on a canoe trip. In Chicago he bought a pair of handcuffs with the ingenious intention of filling his valise with stones, snapping one handcuff thru the handles of the bag, the other around his wrist and jumping overboard. At a town about twenty miles above his chosen spot, he bought an old skiff for five dollars and set out down the river between the woods and fields. By the time he had floated all day under the blue sky with birds pee-winking and sweet perfumes floating over blooming meadows, he concluded that even old D., his school principal, couldn't blacken a whole world for him. When he reached the deep water place that was to have been his grave, he threw the stones and handcuffs in and continued on his way, soon sending a telegram that he had been suddenly called off on business and was on his way back. He was thereafter so cheerful and indifferent that the principal thought he had secured another place and began to see more worth in him. H. afterward truthfully said that he had considered another place but concluded to give it the go-by.

Walking was Stevenson's prime way of getting away from "those little black creatures that leer at one from the dark corners of life." Andrew D. White says his best of all medicine, when embittered and careworn, has been an excursion in the open air. Along with the remarkable spirits of St. Paul and the apostles springing from the divine inspiration within them, is the interesting fact that they were out-of-door folk. Postmen are proverbially merry.

Professor Brinton whose *Pursuit of happiness* I spoke of, seemed perpetually cheerful but he said he had not only the blues but the deadliest of blacks. However, they never failed to yield to the homely remedy of good hard work, mental and especially physical. Pleasure is said to dote on idleness but pain grows fat on it.

Case 86. W. lost his position as principal and immediately built a boat, after which he was in the proper mood to make the right impression while applying for another place.

Visiting the sick or helping the unfortunate is unsurpassed as a lightener of one's own sorrow. It is when wounded that

one realizes the value of encouragement and sympathy. Get some flowers, hunt up some family of your school parish where service is needed. The mere fact that you have been hurt or humiliated or turned out has not decreased a jot the sum of human woe requiring help. Those are some things to do while the acute stage of schoolman's trouble is upon you. They are the sorts of anesthetic to allay that mental pain that comes with the first shock of repudiation, hostility of those in power, or notice of disaster.

The schoolman needs, however, none more than he, an extended self-treatment of mental hygiene to give him such fiber that the stabs peculiar to his work and government will not hurt him. For one thing he should learn not to talk about himself. Anglo-Saxon tradition requires that a man should not mention his trouble. Here is where the schoolman is weak. When any two of us get together the tune is likely to run to the minor. Hardly a schoolmaster ever talks to you ten minutes without complaining of something. You match his whine with a wail of your own. We don't take pains enough to tell people what a jolly good chance we have to do the world the kind of service we set out to do. What did Roosevelt say to the reporter who regretted the pounding the president was getting from his former supporters? "I'm having a corking good time here." We need to enumerate to others more frequently the delights of knowing children, their fresh young joyous life, and the pleasure of learning, and of teaching. That interests a listener more than the distress of red tape, of supervision, and of too hard work. If ever we do get into really deep trouble, it is disappointing to us to find that our friends are so used to hearing us complain that they can not give us any sympathy. It would not be a bad plan to write upon the blackboard Walt Whitman's *Henceforth I whimper no more.*

It is surprizing how any man who has read biography can in his crisis complain that those whom he thought his friends and obligated to give him gratitude fail to show any. This is only one of the brands of foolish talk a schoolman in trouble gets out of his system. We exaggerate our services

toward all of our acquaintances. We magnify their perfidy. It is, as Epictetus says, the part of weak men to make their commonplace misfortunes into tragedies. Your trouble, if you tell it, never seems to me so great as to you. Plutarch says we must look at our misfortunes just as we estimate another's. Pythagoras it was who said "If you are defamed, keep silent. Talk will convince no one: your life and character must proclaim you, not your words. Be silent, just, industrious, and moderate, seek not to arouse others to punish your enemies nor to punish them yourself. Nemesis belongs to God, not to you. Be silent." "The Fool," says Epictetus, "runs to the gods complaining that his nose runs. Let him wipe his nose. Give me the man who wipes his own nose, for have the gods not given hands and endurance and magnanimity, and manliness? Wherefore, then, shall we not use them?"

To give way to weakness and depression is a seductive habit. "Womanish men enjoy a good snivel." Mortimer Granville wrote this in a medical treatise. He thought that repetition of the practise developed a microscopic power of viewing one's own troubles. Opening one's eyes with sympathetic interest one sees the truth of the proverb, "Everybody has his own grief." Blue men often say that they came into the world with a disposition that they can not change and that they live in circumstances that they can not control. This is a surrender before the fight. How can one say this at least until he is dead? Unless one has been in every circumstance and has tried every remedy, let him hush. You were never, at any waking moment, possest of any disposition of mind which you could not modify, nor have you ever seen such a person unless he was ill. "I ought," says Kant, "implies I can."

Mr. Bardeen, who has studied us for years, and recorded us with startling frankness, says we schoolmen have more need to make ourselves over than any other class alive. Only a severe punishment seems adequate to awaken a schoolmaster to the defects that bring about the contumely he receives. One reason why he gets rebuffs is because he shows

they hurt. No one cares to pound a man who doesn't make a fuss. The problem is how to change from a man who minds it to one who doesn't. The Epictetian doctrine is that externals can not really harm a man and most of the worrying that men do is about externals altogether. As Robert Louis Stevenson wrote to his friend, "Disappointment, except at one's self, is not a very capital affair."

But whether it is outside or inside things that make the schoolman suffer, he can ordinarily put a guard at his gate and a policeman within to keep outside trouble from entering and inside discontent from making a disturbance. Why sing "my mind to me a kingdom is," if I am not able to rule it? Burke's statement, "It is the prerogative of a man to be in a great degree the creature of his own making," is a truism of most value to a man when he believes that powerful people are trying to unmake him. One of the satisfactions of your enemies is to see your mortification on being degraded to a lower place. There is so much luck in the appointment of schoolmen that half the time the opposite result follows a dismissal.

Recently I ran across this brief news note in the *Journal of Education:*

A. had a bitter fight with his school board when he was approaching the dead line of fifty. He lost a $3,800 position but was soon elected to a neighboring city at $4,000.

D., persistently opposed by a minority of the Board, one day found a majority against him. He had to turn his back on $4,000 a year. Altho nearly fifty years old he at once secured a $6,000 position.

B., over fifty years old, superintendent at $4,000, for several years endured attacks by persons without influence until one of his critics got upon the board and got him out. He at once secured a better position.

M., nearly fifty, superintendent at $2,500, for several years with only the ordinary opposition, without warning was superseded. He was at once elected to a $4,000 position.

These are only a few of similar instances. Supervision exposes a man to the kicks of petty natures, but often these kicks are boosts upwards to better things.

So there is the element of luck and hope to entertain a man, but even if he's doomed to an inferior grade next time, this is a matter of externals. We know that our inner judgment tells us that our service is as valuable in a small place; no doubt we can do more real service because there is less machinery. It is what others will think that hurts us—the others who are casting us out—the others who do not care enough about us to lift a hand. Why do we fret about their opinion?

But no one can search into school opportunities very long without remarking that the high places are generally the farthest removed from genuine service. In them opposition is greater; maintaining defenses consumes time and effort which might be given to service. In high places, friendships are fewer. The delights of helping and getting close to the real pleasure of teaching are excluded by the baser enjoyments of power, of receiving deference, of building big systems, and being party to various schemes, plottings, and gossipings which infest educational headquarters.

If you are losing one of these places, dwell on the compensation. You will be getting nearer to the real work for which you went into the business. Observe that, except so far as externals go, you will be better off in the smaller position. There is little justification for you to be afflicted with the material worries of the busy, accumulative crowd about you. You must realize that you turned your back on that when you entered this occupation. It is doubtful whether the philosophy of Bacon and Locke, with their great effort to reach happiness by adjustment of external conditions, is good for a schoolmaster. In American life what newspapers say about us seems of more concern than what is true. We care too much how we appear, how our superiors rate us. Somebody says "X. is a brainy and capable schoolman." X's heartbeats quicken. Another one says "X. is an educational fakir." His temperature goes down. These are externals. To the self-controlled man they make little difference. Within your breast is the best judge whether an act of yours is that of a capable schoolman or of an educational fakir. He who lets

externals guide him neglects to apply the motive power and rudder ready at his hand. Let him use his resentment for fuel with which to generate more power. Trouble is the strong man's opportunity. It is the weak man's means of growing strong. However heavy your burdens are, however weak you seem to be, by searching literature and life you can find many weaker than you made strong by heavier burdens. "At first," says Andrew D. White, "attacks embittered me, but I grew to see that they were valuable in arousing me to new effort." "To have suffered, nay to suffer," wrote Stevenson to Archer, "sets a keen edge on what remains. This is a great truth and has need to be learned in the fire." It is a law of life that opposition and disappointment must come. The future of most of us is like to have more of these things than the past. Why not then acquire the habit of making these things give up their nutritive juices to us? Balfour believed that Stevenson had known the greatest bitterness of humiliation and sounded the darkest depths of the spirit and that the sufferer felt that the purpose of this is to keep a man awake, to keep him alive to his own soul and its fixt design of righteousness. We are not only under the education of words and doctors but "beneath the sharp ferule of calamity we are God's scholars till we die."

"I can not recover from this blow!" a good schoolman wrote me two years after his failure in succeeding himself in an elective office. "His disappointment killed him" was common talk about a well-known superintendent who fell out of his place. "He sits and broods over his defeat all the time," they say of another. This is spiritual suicide. Have we not heard some of the world's best men testify that they never knew what it was to appreciate art, or poetry, or nature until they turned to these things for solace and inspiration in time of trial? Nothing will make us seek solace and inspiration so soon as the need of them. It is pain and sorrow that bring us into our birthright. Unless a man is bruised he never knows the richness of experience of giving sympathy. When things are running well with one he can not know the suffering of others, even that which he himself

has made. Longing for sympathy, he can realize the value of giving it. He is to be congratulated that he has received the scourges that have made so many men gentle and considerate. Thus John White Chadwick:

> "Things that hurt and things that mar
> Shape the man for perfect praise,
> Shock and strain and ruin are
> Friendlier than the smiling days."

Have we not seen men whose every outward act resulted in seeming failure, going on from strength to strength, even to virtues of heroic mold? "After I had suffered much contempt and derision and had been committed to gaols or while I would be threatened with death by mobs," wrote Howell Harris in his journal, "a joy unspeakable and great glory would come into my heart so that I was happy in my soul and full of courage." If you do not get abuse and criticism and humiliation you must be lazy. For the active man goes out looking for these things as cultivators of his manhood. "Eager desire to suffer and to fight," wrote Roosevelt to Mrs. Van Vorst, "are fundamental virtues, strong elemental qualities without which there can be no strong races."

It is not discredit, or lack of appreciation, or a fall to lower place, or injury to reputation to be afraid of, but, as Epictetus said, it is fear itself which we should avoid. The standard for a schoolmaster to set is that of those men of whom Emerson speaks as rising refreshed on hearing a threat, to whom a crisis comes beloved as a bride.

These are the chaps who have learned the art of transmutation. It seems as tho a costumer stood at the entrance of their souls with inexhaustible chests from which to clothe, as wanted, anything that entered. These men digest insult, and absorb nourishment from it. Do you remember a retort of Aristippus? He had been assigned by Dionysius to a very mean place at a banquet, altho a few days before he had occupied a seat of power, "How do you like your seat?" sneered Dionysius. "How is it?"

"Fine," cried Aristippus.

"How so?" demanded Dionysius.

"Because I am in it," said the sage.

"How about that one?" continued the tyrant, pointing to the place the philosopher had previously occupied.

"That was the seat of honor when I filled it."

Where the Macgregors sit is the head of the table. You can not ruffle their serenity. You seek to frighten them with arrow stories. "We'll fight in the shade," they answer.

Henley sings their pean:

"Out of the night that covers me
  Black as the pit from pole to pole
I thank whatever gods may be
  For my unconquerable soul.

In the fell clutch of circumstance,
  I have not winced nor cried aloud.
Under the bludgeonings of chance
  My heart is bloody but unbowed.

Beyond this place of wrath and tears
  Looms but the horror of the shade,
And yet, the menace of the years
  Finds and shall find me unafraid.

It matters not how strait the gate,
  How charged with punishment the scroll,
I am the master of my fate
  I am the captain of my soul."

It is useless to attack such fellows. You shoot their flag away and ask "Have you struck?" "Struck? Why, no, we haven't begun to fight yet." "I'm the luckiest man in the world," a Chicago teacher once said. "Broke my arm instead of my leg; the same doctor knew how to operate on my ear; and I have the asthma only in the summer when there isn't any school."

There is a bracing bit of verse in the trophy room at Cornell University written by a young fellow named Corlie.

"You're beaten to earth. Well, what of that?
  Come up with a smiling face.
It's nothing against you to fall down flat
  But to lie there; that's disgrace."

"The harder you're thrown, why, the higher you bounce.
Be proud of your blackened eye.
It isn't the fact that you're licked that counts,
It's how did you fight and why?"

I have heard, again and again, schoolmen in trouble seek to condemn their critics on the ground that by making the schoolman unhappy the antagonists had impaired his efficiency and deprived the children of the best teaching. Even altho one dictionary definition of happiness makes it the end sought by the activities of our life, we can not bring ourselves to beg our persecutors to desist because they are making us unhappy. That must seem a childish plea. Better the old Aurelian doctrine that happiness doesn't matter much. Stoicism, discredited by our civilization for other causes than unsuitability as a guide of life, possesses the recipes for manhood much needed by the harassed teacher. Let him remind himself that happiness is a state of mind within his control, that worry is a vice of a weak will, is as evil as gambling, licentiousness, and drunkenness, and that the main question to decide right is whether he has played the man. Here is a sailor's prayer to Neptune quoted by Montaigne from some old book:

"O God, thou mayst save me; if thou wilt, thou mayst destroy me; but I will hold my rudder true."

And here is another petition of a Scottish divine,

"Laird, gie us mony braw enemies and the pooer to enjoy them michtily, a' for thine ain great glory."

William McAndrew

Washington Irving High School
New York

III

COMMERCIAL BRANCHES IN THE HIGH SCHOOL CURRICULUM[1]

It is a matter of statistics that no more than five per cent. of all the pupils entering the public schools of the country reach the high school, and of those who do, 3-5 leave school at or before the end of the high school course; 2-5 going on to the college or university. Of the pupils who go no further than the high school, it may be inferred that they are to enter business—to become clerks, stenographers, bookkeepers, and by promotion, managers, partners, proprietors in business enterprises. The boy who is to take up a trade or to enter any other manual occupation must begin his apprenticeship at or before the high school age.

The high school has, therefore, two functions: one to fit a certain number of young people, educationally speaking, for the active duties of life; the other, to prepare a certain number of other young people for further education in the college or the university. The two classes of pupils stand in numbers as three to two.

The college preparatory function of the high school has been recognized from the first and is well cared for; the colleges see to that. The development of the commercial side of the high school's work, which is a recognition of the claims of the prospective young business man on the attention of the high school, is of more recent growth. It is, however, developing very rapidly. There are today 91 public high schools in the state of California which offer instruction in commercial branches.

As in the case of most new things, there is apparent a tendency to overwork the commercial idea, to give undue weight

[1] A paper read before the High School Section of the California State Teachers Association, San Jose, California, December, 1908.

and importance to commercial subjects, to make of the commercial branches a separate course, to set them over against the classical or college preparatory course, and to create a distinction between the two classes of students, often to the disparagement of the former. It is argued: the young man is destined for a business career. He ought to busy himself with the problems of trade and commerce. He is not seeking an education for culture but for strictly utilitarian ends. Literature, the classics, higher mathematics, the sciences, are not for him; they are foreign to his needs, if not to his taste. They belong to the young man who is to enter college. It is best that the young business man should follow a practical line of training specially suited to fit him for the matter-of-fact work of the office and store.

This view overlooks the fact that the young business man has social relations, relations as a citizen to his state or municipality, to the future generations thru his children. This division in education as applied to high schools is a mistake. If anything it is the young business man who should get the cultural side of the high school course, the very best which the school has to offer. It is his last chance. The college man can supplement any deficiencies in his high school training. What the business world needs is better education for its young men along the line of those subjects which make for breadth of view, for high ideals, honorable conduct, for well-rounded character. This training is not to be found in such subjects as commercial arithmetic, commercial geography, shorthand, or bookkeeping.

The true need of the commercial world is well illustrated in the movement which has brought about the establishment of commercial courses in our universities and colleges. The University of California has a department of commerce; so have Michigan, Wisconsin, Chicago, Illinois, and Pennsylvania. Columbia and Yale have a joint course fitting for the public service. At the beginning of the present year Harvard University has established a "graduate school" of business.

The idea of commercial instruction is repugnant to the average academic mind. The movement is therefore not

wholly voluntary on the part of the colleges. It has come as a response to the reiterated criticism of the business world that the college education is unpractical; that as a matter of fact it tends to unfit a young man for a business career. The movement, however, represents also an admission on the part of business men that there is a power and effectiveness in the university training which the business world needs and would have, if possible.

Two examples will illustrate further this point. In 1897, the Chief of the Civil Service Commission at Washington, in conversation with the President of Stanford University, said that what the public service needed most was educated office men; that if we could send him twenty-five graduates of Stanford University who were at the same time competent stenographers, notwithstanding its eligible list contained hundreds of qualified stenographers, the Commission could place them at once in good positions where there was practically no limit to the promotion they might earn.

The occasion of this statement was the then recent rise of Mr. George B. Cortelyou to be secretary to President McKinley and the promotion of Mr. Howell to an assistant secretaryship in the Treasury Department, both men having entered the service as stenographers, but stenographers with an educational equipment of college grade which placed them head and shoulders above the average run of stenographers.

Again, Mr. R. B. Hale, a business man of San Francisco, in an address before the students of Stanford University last winter, speaking of the reason why business men of wealth and large responsibilities seldom retired before failing health and powers forced them to do so,—the common belief being that the fever of gain, the desire to see money grow, held them enthralled,—said there was often a very different reason, namely, that they could not find substitutes into whose hands they felt safe in passing their interests. Pride in the enterprise their hands and brain had builded, and dread to see it deteriorate thru inexperience and mismanagement, often led them to continue at their posts till breaking health or even death itself overtook them. He intimated that what

these captains of industry needed was young men of broad education and training, such as the universities give, to come into their employ in minor capacities as understudies, learning by long association their methods, gradually taking over their responsibilities. He said that the business world was looking to the universities for men to take such places.

What is true of the college education is true in proportionate degree of the high school education. What the business world needs at the hands of the high school is that it shall give to the young man it is educating for business the best and broadest possible training. Instead of narrowing and restricting his course it should broaden and strengthen it.

Let us look at what the high school is doing in this respect. I have here before me the four years' commercial course of one of the leading New England high schools. It is fairly typical. The course is as follows, the numerals in parentheses showing the number of recitations each week in the given subject:

First Year

English (4); algebra (4); arithmetic, penmanship, and spelling (5). Take one: German (5); French (5); history (3).

Second Year

English (3); bookkeeping (5); arithmetic 1-2 year (3); commercial geography 1-2 year (5). Take one: German (5); French (5); geometry (5).

Third Year

Commercial English (4); history of commerce (3); common law, 1-2 year (5); civics, 1-2 year (5). Take two: German (5); French (5); stenography (5); typewriting (5); physics (5); English (3).

Fourth Year

Commercial English and correspondence (4); advanced arithmetic (2); advanced bookkeeping and office practise

(5). Take two: English (5); chemistry (5); stenography (5); typewriting (5); United States history (3).

In the first year of this course, five recitations a week are devoted to arithmetic, spelling, and penmanship. In the second year bookkeeping takes 3 recitations; commercial geography 5 for half a year and arithmetic 3 for the other half, or 4 in all for the year. In the third year commercial English requires 4 recitations, simple English having been taken in the first and second years also; history of commerce 3; law and civics 5; stenography 5; and typewriting 5. Commercial English and correspondence occupy 4 recitations in the fourth year, with advanced arithmetic taking 2; advanced bookkeeping and office practise 5; stenography 5; and typewriting 5. The total time devoted to so-called commercial subjects is 57 hours out of a normal 78.

The elective or supplementary courses are interesting. In the first year the pupil takes English and algebra regularly and may choose one from the three subjects, German, French, geometry. In the second year he has English again and may choose one from German, French, geometry. In the third year he may choose one of the four, German, French, physics, or English. In the fourth year he may try chemistry or United States history.

Let us examine in detail these so-called commercial subjects. Arithmetic is a grammar-grade subject; it matters not whether it has "commercial" prefixt to it or not. It has no real place in the high school. If a pupil is deficient in this subject he should not have been graduated into the high school. That pupils should be expected to spend time in daily recitations on arithmetic during three of the four years of the high school course seems incredible, and yet here it is in the schedule.

Now arithmetic is very important to the young business man, but this arithmetic is the foundation on which his course in bookkeeping must be based. What is bookkeeping if it is not a practical application of the methods of arithmetic to the treatment of business transactions? The commercial arithmetic should be developed in connection with the book-

keeping course of which it is an essential feature. Then let us cut out arithmetic as a separate course.

Spelling is the next subject mentioned. This is worse than arithmetic. It is a grammar grade subject pure and simple. It is a waste of time for the high school pupil to have recitations in spelling. And yet spelling is a most important subject, especially to the stenographer. Without it his skill in the writing of shorthand and the operating of the typewriter is useless. But what is the nature of the course in shorthand and typewriting? It consists in the writing of some four or five thousand of the commoner words of the English language in accordance with a brief form of characters. These words have to be translated into shorthand characters and transcribed back into longhand or on the typewriter. The words must be written not once, twice, or a few times, but literally thousands of times. A month is sufficient time to learn the theory of shorthand, but it requires four months of practise to fix the rules and gain the requisite speed. The work means write, write, write, hour after hour, day after day, reading back the notes, transcribing, and comparing the words. This work is all under inspection of a teacher. If any high school pupil comes thru this ordeal without knowing how to spell the words with which he is working, his case is hopeless. Then finally there is one simple and effective lesson in spelling which any teacher can give to any pupil in a single sentence: "Go to the dictionary, and don't go twice for the same word." By all means let us cut out the spelling as a separate subject.

Next comes penmanship. I need not go into details over this. The subject is incidental to the course in bookkeeping. A few minutes' time of this class from day to day devoted to drill in the movements of writing, proper holding of the pen, and the correct forms of letters is all that this subject needs. It is not high school work. It should be cut out.

The next subject is commercial geography. It also belongs to the grammar grades. There is a sort of intensified geography which is important to the young business man, but this forms naturally a part of his instruction in the fundamental

commercial subjects. It is found in the map of the state, the county, the city in which he is to work. It is found in the United States Postal Guide, in the travelers and shippers' guide, in a good atlas such as the Century, in the city directory and the telephone directory. These should all be familiar to him. They will be found to be a part of the reference equipment of any good office. They should form a part of the equipment of any course in shorthand and bookkeeping, and tasks designed to illustrate their use should be assigned regularly to pupils in these subjects. So far as formal recitations are concerned, commercial geography should be cut out of the high school course.

Then we come to commercial English. What is commercial English? Is there a special style of grammar for business correspondence? We may answer, No! and the subject falls at once into its proper place as a part of the regular work in English composition. If the English department is not teaching the high school pupil how to write a good business letter, its course should be reformed, not supplemented by a new course.

It may be said further that the four months of practise, which is part of the regular work in shorthand instruction, can in a large measure be based upon business letters and papers. There are manuals on manuals of these arranged as dictation exercises. They can be found grouped under special business heads, as railroading, lumbering, retail trade, wholesale trade, and the like, or scattered over a wide range of subjects. They are to be written in shorthand and transcribed on the typewriter. Original letters will be dictated by the teacher for transcript. Answers to letters will be suggested, the wording being left to the pupil. The pupil who receives a proper course of instruction in shorthand and typewriting ought to become thoroly steeped in business style and form. Commercial English and correspondence as separate subjects may therefore be cut out.

The same is true of history and civics. If the commercial aspects of history are not sufficiently covered by the regular courses in American history or general modern history, to

meet the need of the young business man, something is wrong with the history teacher.

There is left commercial law. This can not be disposed of in the way we have treated other subjects. It does not belong in the grammar grade nor in some allied department in the high school. This may be said, however: the young stenographer or bookkeeper is not likely to be called upon to give legal advice to his firm, and any profound knowledge of business law is not necessary for him. He needs a certain practical knowledge of the ordinary forms of business paper, checks, notes, drafts, bills, etc., and their use, but these papers are the stock in trade of the course in bookkeeping. Its operations are carried on by means of these papers. A few minutes' talk on them by the teacher, as occasion may arise, will suffice to give all the knowledge in this regard that is needed, and commercial law as a subject for separate recitations may be cut out.

What, then, is left? Just the essentials of the commercial course and no more. These are shorthand, typewriting, and elementary bookkeeping, the only subjects that should formally appear as commercial branches in the high school.

But it will be objected that there must be a reason for the presence in the high school curriculum of the courses we have so ruthlessly cut out. There is a reason and it is a very simple one. The high schools have borrowed their commercial course from the business college—a very different institution; and the reason for this borrowing is a very interesting one. It is that the public school system has made no provision for the training of teachers in commercial branches.

Ninety-one public high schools in the state of California are today offering instruction in subjects, vital to the interests of 3-5 of the high school pupils of the state, in which no provision whatever has been made for the training of teachers. We have a fine set of normal schools and two universities, the latter specially charged with the work of preparing teachers for the high schools, but neither normal schools nor universities offer training for commercial teachers. This is a most

remarkable state of affairs and one worthy of the earnest consideration of our high school men.

The point I wish to make, however, is merely that the high schools in looking for teachers had to go to outside sources for them. During the past year Stanford University was asked to name an even score of teachers for commercial work in high schools, but has not been able to recommend a single teacher because it does not fit teachers for this work. It is producing teachers of English, history, the languages, the sciences, but not of shorthand and bookkeeping.

The first teachers of commercial branches in the high schools were graduates of the business colleges. They were brought in on special certificates like teachers of drawing and music. They could teach only their special subjects. They brought the curriculum of the business college along. It was useful, too, because it helped fill in the time of the commercial teacher.

The business college has no entrance standards. Any one who can pay the tuition may receive its instruction. It has no allied departments and no grammar grade foundation to build its work upon. Some of its pupils, most of them in fact, are deficient in the elementary subjects. Spelling, arithmetic, geography, history, have been introduced to enable such students to make up their deficiencies. But no business college would expect a high school graduate to take up these subjects in its classes. He would be advised and urged to devote his whole time to the essentials—shorthand, typewriting, and bookkeeping. The elaborate commercial course of the high school is based on an analogy and a false one at that.

We have cut our so-called commercial course down to bedrock—shorthand, typewriting, and bookkeeping. Let us now find a time value for these subjects. If a young man goes to the proprietor of a business college and says: "I have a good general education. I want to be a stenographer. How long will it take?" The answer will be—"Six months at a maximum. If you are naturally quick and work hard, perhaps five months will do." And it can be done in five months. There are schools which will undertake to do it in six weeks.

One of the first commercial teachers Stanford University contributed to the high school work of the state got her training in six weeks in a San Francisco business college while the position waited for her. Judged from reputation she had had a successful career. It is impossible that her work should have been truly successful, and that it is reputed so discloses the low standard by which it is measured. In case the young man should wish bookkeeping also, the maximum limit set by the business college would be eight or nine months. Of course, the business college would take all the student's time. This would represent a high school year, one-fourth of the full high school period of four years. But there is no advantage in giving the undivided time to these commercial subjects. They can be taken in conjunction with other subjects quite as well.

We are now prepared to translate this business college requirement of time into high school terms. The subject of bookkeeping should come first, beginning in the second year. Five sessions a week of two hours each, the equivalent of five regular recitations with an hour's preparation for each, will cover this subject in the same way that it would be covered in the business college. In connection with the writing up of the stated books, the teacher in bookkeeping will give brief drills in penmanship, in special computations, in the use of the different forms of commercial paper.

In the third year the subjects of shorthand and typewriting will be taken up. Three recitation periods, with seven additional practise periods, the equivalent of five recitations a week with an hour's study in preparation for each, will cover these subjects in the year.

In the last or senior year there will be a combination course in actual business practise for students of both shorthand and bookkeeping, the work centering in a fully equipped modern business office with all the accessories of such an office. This will take three periods a week of two hours each or the equivalent of three recitations a week for the year. The stenographers will receive dictation; transcribe, file, copy, and mail actual letters—performing all the routine duties of a stenographer. The bookkeepers will keep during brief periods

an actual set of books under conditions approximating those to be found in a business office and will perform such duties of a general nature as would be expected of a bookkeeper. There will be drill in the dictating and writing of letters; bills and statements will be prepared on the typewriter. In a word this year's work will aim to make the young stenographer or bookkeeper as nearly fit for actual work as a school can do this.

In the course here outlined we have used just thirteen of the normal hours of the high school course, counting four recitations five times a week thru four years as the normal course. This time is adequate to make the average high school girl or boy competent as an amanuensis or assistant bookkeeper—all that the high school or any school can hope to do.

And here I want to call attention to the fact that it is not necessary for the high school pupil to take both shorthand and bookkeeping. They lead to distinct occupations. Either will open the way to a business career. We may therefore make a further cut in the essential time, reducing it to the five hours necessary for the preliminary year in either shorthand or bookkeeping and the three hours of the finishing year, eight hours in all, just 1-10 of the time of the high school course.

I am speaking here of ideal conditions. To carry thru the program here proposed would require a high grade of teaching. The teacher who is to do this must be properly trained—university trained, just as the teacher of history or Latin is. If the high schools of the state will demand such training for their teachers of commercial branches, the universities will doubtless undertake it. It is as much a part of their duty as the training of teachers in any other high school subject. The University of California has a department of commerce. It would be necessary only to introduce into it a course in actual business practise such as has been outlined here to make its graduates ready for work as commercial teachers. Such a course—I mean such as would make a stenographer or bookkeeper out of the graduate in commerce

—is as essential to the training of a university man for business as the shop practise in the engineering course is to the training of an engineer.

To sum the whole matter up, eight hours out of the eighty of the high school course are sufficient for the technical training of the young business man. He should be encouraged for the rest to take the best the high school has to offer—the classics, history, literature, science, everything that will make for culture and breadth. It is said, and with truth, that the high school course of today is equal to the college course of thirty years ago. The young man who has a high school education is well equipped. But this means the classical, college preparatory course, not the commercialized substitute which is now being offered to the young business man. It is the duty of the high school to see that the young business man gets this broad education with that minimum of technical training which will enable him to find a useful place for himself in the business world.

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Stanford University

IV

THE WORKING OF A LARGE BOARD OF EDUCATION [1]

[NOTE.—The author has had many occasions to work over material on subjects like this one, which are purely technical, and it is his experience that the subject matter is usually packed away under wrappings of verbiage and rhetoric. This article represents an attempt to strip technical facts of extraneous matter, and present them in a logical, definite manner, easy of comprehension. Such a system of presentation, if generally adopted, would greatly reduce the number of book pages devoted to any technical subject, and would, at the same time, greatly facilitate the perusal of an article. At present an author makes a careful outline for an article and then obscures it under a burden of rhetoric. The reader, in his turn, is compelled to tear away the rhetoric in order to get a glimpse of the outline. This hiding of the light under a bushel hinders the work of both parties.

An article like the following can be scanned in two or three minutes. If it contains facts of value to the reader, they can be appropriated at his leisure. If it does not contain any such facts, he may pass on to the next article. The exact character of the article is determinable at a glance.]

Until 1906 Philadelphia had a typical old style Board of Education, composed of one member from each of the 43 wards. The new school law reduced the number of members to 21, thus leaving the form of a large board. The members of the new Board were appointed, as under the old law, by the Board of Judges, so that the most prominent members of the old Board were continued in office under the new régime. As the prominent members of the old Board held over, so did its traditions and practises. The new Board is, therefore, following the general policy of the old Board. The committee organization is maintained; the modes of procedure are the same. The Philadelphia Board of Education represents, therefore, a typical large board of education and a study of its workings should show with some degree of definiteness the character of the work of a large board of education. While the deductions from such a study are not conclusive, they form one link in a chain of facts, which may easily be

[1] From material prepared for the Philadelphia Public Education Association.

completed by similar investigations into the work of other large boards of education.

I. THE WORK OF THE PHILADELPHIA SCHOOL BOARD

A. *Magnitude of the cost of the board of education*—In Philadelphia, a city of a million and a half inhabitants, the Board has under its control: 4,000 teachers, 180,000 pupils, $6,000,000 of annual expenditure, $20,000,000 invested in school property.

Twenty-one men are appointed by the Board of Judges to oversee and direct this $20,000,000 school plant. Here follows an account of their stewardship.

B. *A board of twenty-one men can not transact business efficiently*—They are too numerous to gather around a table and talk, and a large chamber, newspaper reporters, the necessity of rising to address the chair—all of those things result in oratory and bar the possibility of true deliberative action. The great corporations of the country are governed by small boards of directors. It is a recognized fact that business can be effectively transacted in no other way.

C. *Committees are appointed to do the work of the Board*—The business must be transacted, and as it can not be done by the large group, the Board is split up into committees to which the work is delegated. At present there are ten standing committees of the Philadelphia Board, two with seven members, and eight with five members each.

D. *The Board recognizes the inefficiency of a large group,* by dividing itself into small groups for the transaction of business. The Philadelphia Board condemns its unwieldy size thru its own committee organization.

E. *This dependency of the Board upon committees* is so great that almost every item of business coming before the Board is referred to a committee, and the resolutions past by the Board are almost exclusively the product of committee deliberation.

Thus during 1906, 1907, and 1908 of the 694 communica-

tions received by the Board, 145 were acted on or filed, 549 were referred to committees.

During the same year, of the 1,386 resolutions past by the Board, 63 originated in the Board; 1,323 were reported from committee.

Motions "originating in the Board" are those which are made by members of the Board and past by the Board, without the interference of any deliberative body. In Philadelphia most motions originate in committee, and those made in the Board meetings are usually referred to committees.

F. *The confidence of the Board in the committees is unbounded*—Not only does the Board recognize the value of small deliberative bodies, by committing to them most of its work, but the judgment of the committees is usually accepted without question.

1. During 1906, 1907, and 1908, of the 446 committee reports coming before the Board, 421 were adopted unanimously and, so far as the minutes show, without debate; 3 were referred back to committee; 3 were adopted on a division vote; 14 were debated, and 2 were rejected.

In one of these two cases the committee made a minority report which was responsible for the defeat of the majority report.

2. In addition to accepting the decisions of the committees as final, the Board, as a further testimony to its unbounded confidence in committee action, constantly suspends its rules when they conflict with committee recommendations. During the three years under consideration 438 committee reports were accepted. Of these 78 involved a suspension of rules.

3. At times, by a suspension of the rules, full power to act is vested in the committees. They are given unlimited authority, and during the time that this authority is delegated, the committees decide important matters wholly independent of the Board.

On June 11, 1907, the rules were suspended to adopt the following: "That the clause in the By-Laws of the Board that awards of contracts shall be subject to the approval of the Board, be suspended so far as awards may be made by

the Committee on Property between the meeting of the Board in June and the following September, and that the Committee have full power to award contracts during that time without further action of the Board."

This recommendation was unanimously adopted, in spite of the fact that a later meeting of the Board always is held between the June and September meetings and was held in 1907, on the 19th of July.

On July 14, 1908, the Board adopted the following resolution:

"That the Committee on Property be authorized without further action, to award contracts and purchase sites between the meetings of the Board in July and September next."

The following resolution from the Committee on Finance and Accounts was adopted January 8, 1907:

"That all bills for payment due on contracts, ground rents and pay rolls of officers and employes for the month of January be referred to the Committee on Finance and Accounts with power to act."

Power was placed in the hands of the Committee on Text Books and Supplies, April 14, 1908:

"To award the contracts for mechanical equipment and laboratory supplies, etc., opened on April 2, 1908."

G. *The work of the Board of Education is in effect performed* not as is commonly supposed by the Board of twenty-one authorized by law, *but by ten boards of five or seven members working sometimes under the general direction and sometimes practically independent of the Central Board.* The extent of the committee independence may be gathered from the following instances taken from the minutes of the Board, 1906-1908:

Committee on Property, after stating promotions and elections of 15 employes—"Resolved that the above-named promotions and elections be confirmed to date from time stated."

Committee on Text Books and Supplies—"Resolved that the awards of contracts, as enumerated above, be approved."

Committee on Finance and Accounts—"Resolved that warrants be drawn in favor of the persons named in Account

Book No. 3-A, pages 30 to 62, inclusive, aggregating $601,673.37."

The Committee on Property reports the following awards of contracts (47 contract awards follow)—"Resolved that the foregoing awards of contracts be approved."

Committee on Normal School of Qualification of Teachers:

"The following named persons have been elected teachers in the school." (19 by name.) "The election of teachers was approved."

H. *The educational work of a city is distorted when it is being carried on by 10 boards,* acting with a greater or less degree of independence. A scrutiny of the expenditures for various analogous purposes will establish this fact and show that the funds are not apportioned in accordance with the needs of the various branches of school work.

There can be no doubt that the elementary schools are in dire need of finances. Three thousand children are in rented buildings, 1,000 are on the waiting list, 15,000 on half time, and the teachers are struggling with an average per class of 45 pupils.

A striking contrast exists between the funds provided for the inadequate elementary schools, and the higher schools, which, while actually very poorly provided for, are comparatively well off.

ELEMENTARY SCHOOLS

Pupils per teacher, 45.

Expenditure per pupil, $30.

HIGH SCHOOLS

Pupils per teacher, 25.

Expenditure per pupil, $125.

Thus the elementary schools, with nearly twice as many pupils per teacher, are receiving only one-fourth as much money per pupil as the high schools. This in spite of the notoriously bad condition in the elementary schools.

The same fact is even more strikingly illustrated in the 1907 expenditures for supplies per pupil.

Elementary schools, $2.56.

High schools, $25.37.

A high school, with its laboratories, requires a greater expenditure per pupil than an elementary, but a relation of 10 to 1 between the two expenditures is unjustifiable.

For the care of the 250 elementary schools, the Board provides one committee. For the care of the seven high schools, the Board provides three committees. The disproportionate results shown above are the inevitable outcome of such a system of committee control. Three committees, looking after the welfare of seven schools, can do their work far more effectively than one committee, struggling to provide for 250 schools. The high schools are moderately well equipped. The elementary schools are infamously neglected.

I. Conclusion—No large Board can transact the volume of business coming before the Philadelphia Board of Education. Only small bodies deliberate, and only by deliberation can business be efficiently transacted. The Philadelphia Board acknowledges these facts by referring its business to committees of five and seven men and accepting their decisions as final. The large Board of Education, as a business body, is a self-acknowledged failure.

II. A CONTRAST BETWEEN THE WORK OF LARGE AND SMALL BOARDS

An estimate of the character of the work done by a large Board may readily be made by contrasting the proceedings of small and large boards.

The following are condensed statements of the proceedings of the boards in question. They were made from the official minutes of the several boards and show, as clearly as can be shown in a brief space, the working of the different boards. The most notable fact in these contrasted proceedings is that the small boards hear all of the business which the Board is supposed to transact, while the large Board is dependent wholly upon its committees.

A. Albany Board (3 members)

January 9, 1907

1. Seven communications acted on
2. Report of Superintendent heard and approved
3. Board of Estimate and Appropriation requested to work out a new salary schedule

March 3, 1907 (next regular meeting)

1. Three bills ordered paid
2. Three communications acted on
3. Board of Contract and Supply instructed to secure printing estimate
4. Report of Superintendent heard and approved
5. Two principals and a high school instructor appointed

B. Rochester Board (5 members)

January 25, 1907

1. Five communications acted on
2. Recommendations of Superintendent approved
3. Budget disposed of
4. Secretary instructed to advertise for two sets of estimates.

February 4, 1907 (next regular meeting)

1. One communication acted on
2. Report of enrollment and attendance ordered printed
3. Budget disposed of
4. Secretary instructed to advertise for two sets of estimates
5. Salary of a teacher fixt

C. Boston Board (5 members)

January 20, 1908

1. Twelve communications acted on
2. Superintendent reports on 14 topics—acted on
3. Schoolhouse custodian reports on 5 matters—acted on
4. Five communications referred to the Superintendent or the schoolhouse custodian
5. Report of the business agent heard and accepted
6. Five miscellaneous motions past

February 3, 1908 (next regular meeting)

1. Five communications acted on
2. Superintendent reports on 17 matters—acted on
3. Schoolhouse custodian reports on 5 matters—acted on
4. Business agent's report—acted on
5. Seven miscellaneous motions past

D. Philadelphia Board (21 members)

January 8, 1907

1. Communications—four referred to committee; four acted on
2. Reports from committees on:

(a) Property
(b) Supplies and textbooks
(c) Normal school and qualification of teachers
(d) By-laws and rules
(e) Elementary schools
(f) By-laws and rules
(g) Finance and accounts
(h) Special committee on finance

These seven committee reports, which contained 40 separate motions, were all past unanimously and in six cases without debate. To approve one report, the rules were suspended.

3. Three miscellaneous motions were past

E. From these contrasts it becomes apparent that the small board of education is a truly deliberative body, receiving the reports of educational experts, and acting upon them; directing school policy, and intrusting to its paid agents the detailed work. On the other hand, the large board of education exists as a deliberate body only in theory. In reality it approves the work of its committees, usually without deliberation. The work of the committees is painfully detailed, as may be gathered from a perusal of the committee reports.

The following analysis of the Report of the Philadelphia Committee on Elementary Schools (January 8, 1907) will give a definite idea of the detailed, administrative work performed by the committees under the large board.

Committee on Elementary Schools recommends:

1. Appointment of 25 teachers
2. Appointment of a supervising principal
3. Promotion of 4 teachers
4. Appointment of a principal
5. Establishment of a new class
6. Establishment of a new class
7. Authorization of three new classes
8. Dropping of one class
9. Election of a clerical assistant
10. Election of three attendance officers
11. That a certain salary be paid
12. Appointment of ten telephone operators
13. That 18 teachers be relieved from loss of salary under Rule XXX
14. That Rule XXVII § 3 be suspended for the purpose of confirming the Principal of a grammar school
15. That a new salary schedule be adopted (schedule given and covering 13 pages of the minutes)

Under a small board, the above detailed work is wholly performed by paid experts, the board merely passing judgment upon their work. Under a large board, unpaid amateurs struggle to solve the intricate problems of educational detail and the board approves the result of their efforts.

F. These summaries of typical business meetings of the boards in question show that with a small board of education, in the absence of committees, all business comes before the board directly. The detailed business is presented by experts and is received or rejected by the board. The board is primarily a director of educational policy.

In Philadelphia the Board transacts little business. It exists for the purpose of approving committee reports. The detail work that is performed in other cities by paid experts is largely performed in Philadelphia by the committees, so that, instead of securing high class professional service, Philadelphia is receiving low class amateur service.

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V

REMARKS, MATURED AND OTHERWISE, ON OUR PRESENT EDUCATIONAL SYSTEM

Our present system of education endeavors to follow a single, unbroken, straight line from the lowest grade of the elementary school to the highest degree of the university. It is an ideal line and an impractical line. It is ideal because it attempts to carry out the democratic idea in education. It is impractical because it makes this attempt in a most undemocratic manner. Democracy no longer asserts that all men are equal; it asserts merely that the opportunities of all men should be equal to their abilities. Our present educational system is based on the false notion that all have the same ability and that the opportunity to develop this ability should be offered to all. The result is not equal opportunity, but unequal opportunity. The opportunity the system offers is that of scholastic training, and since the great majority of our young people has not the ability to progress along this line, it deprives this majority of its rights. The present dissatisfaction with the whole system, from elementary school to university professional school, is not without its good and sufficient reasons.

Until recent years our colleges laid the course and set the pace in educational affairs. More recently our newly fledged universities have undertaken to be the arbiters in the educational world. Secondary schools submitted humbly to this dictation on the part of their scholastic superiors, and the elementary schools trailed along after their superiors. The consequences are fairly well known. The one overshadowing consequence is a scholastic system of education. Here are some of its practical results:

Hardly 50 per cent. of the scholars enrolled in the first elementary grade complete their course.

Less than 15 per cent. of the scholars enrolled in the first year of our high schools continue to graduation.

Over 40 per cent. of our college freshmen "drop" before their senior year.

Our system of professional education is no system at all, except in a single branch, that of the training for scholastic positions. In this one respect the ideal straight line is unbroken, and since it represents the dominant idea in our whole system, this idea has produced the geometrical paradox of making a straight line equal a circle. Scholastic training from the elementary grades thru to college and university, may be very well for the future teacher, but whom is the teacher to teach? Evidently, according to our present system, in the last analysis, only future teachers. The despised "commecial school" became a necessity. The professional schools, willing to admit the applicant without sufficient preparation, became necessities. Colleges with university affiliations, or our collegiate-universities, began to protest, and proceeded to raise their requirements for admission to the professional schools of law, medicine, divinity, etc.; some requiring the equivalent of a secondary training, some of a two-years' college course, some of a three years' college course, some of the full college course. In consequence our professional degrees represent absolutely different standards. Moreover, scientific or technical schools became a necessity, as adjuncts to our colleges or as independent institutions, and since young men entered these without a college training of any kind, they found themselves forced to couple the task of "liberal" training with that of technical training.

These are some of the consequences of the "system." It would be a merry spectacle, this upward pull of theoretical scholasticism and this downward pull of practical education, were it not for the harm done to true education. And we are beginning to realize that it is a serious problem in the life of this nation. To the writer it has seemed as if the remedies thus far proposed touch merely the method and not the principle of the system. Any remedy, to be effective, must be truly democratic in principle, and however blandly we may

talk of our "democratic" system of education, particularly in our public schools, it is in effect a system of scholastic aristocracy. If it were an aristocracy of scholarship, no one could object; for scholarship is more than the knowledge of books and it is more than theoretical learning. But a scholastic standard is always a single standard for all, and for that reason, tho possibly a help to the few, a distinct detriment to the many. For there can be no such thing as a single line of progress for all.

The suggestion for a remedy which this paper offers frankly discards the scholastic standard and the straight line idea. It disregards as frankly the sanctity of the A.B. degree on its present valuation. This degree is no longer, as in years gone by, a final degree. It is fast becoming, if it is not already, a secondary degree, and to continue to value it as tho it were a final degree seems the height of folly when this valuation stands in the way of progress. The age at which the normal student of today may expect to obtain the A.B. degree is twenty-two. It stands for a scholarly attainment far beyond the demands which the same degree made on our parents. It requires a scholastic ability which is expected only of the university scholar in all other countries. We recognize this fact tacitly when we allow advanced college courses to count toward university degrees, or when we allow professional courses in our universities to count in satisfaction of the requirements for the A.B. It represents an ideal which is distinctly not the ideal of the American college of the past, for its attainment rests for one-half, at least, on scholastic training, which is not necessarily "liberal" training. And lastly, it has "siamesed" college and university after the fashion in which secondary school and college were once "siamesed" and against which fashion we of the college and university have strenuously protested.

The suggested remedy is offered in the form of a diagram, which is preceded by a diagram of the present system. It is offered without further argument, but in the hope of stimulating argument.

DIAGRAM OF THE PRESENT EDUCATIONAL SYSTEM

(Showing the requirements for admission to and graduation from its various grades)

	Grammar				High School				College				Grad. School				
Year of grade	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Average Age	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26+
Degrees												A. B.		A. M.		Ph. S.	D. D.
Independent Schools of Law and Medicine								1	2	3							
granting degrees: LL. B.; M. D.; etc.									1	2	3						
									1	2	3	4					
University Professional Schools, granting										1	2	3	4				
degrees: LL. B.; M. D.; etc.											1	2	3	4			
												1	2	3	4		
													1	2	3	4	
Technologies, Scientific Schools, granting degrees: S.B.; and various Technical degrees									1	2	3	4					
Teachers Training Schools (no degrees)									1	2							

DIAGRAM OF A POSSIBLE NEW SYSTEM

(Indicating how grades may overlap, time be saved, and the university degrees be standardized)

Average Age	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Grammar School	1	2	3	IV	V				1	2	Technical Trade School				
High School				1	2	3	IV	V							
College							1	2	3	4					
University. Grad. School, Technical & Professional Schools											1	2	3	4	
Teachers Training School											1	2			
Degrees											A. B.	A. M.			Ph.D; S.D. M.D; LL.D; etc.

N. B. Years IV and V of Grammar School devoted mainly to industrial training; years IV and V of High School devoted mainly to manual, commercial training, etc.

The suggestion contained in the foregoing diagram puts the burden of the change on the colleges, where it really belongs in view of the fact that they are primarily responsible for the present situation. The change implies the lowering of the college entrance requirements to a point where these requirements can be met by well-equipped high schools in three years, and the confining of these requirements to those subjects which all high school graduates should study, viz: English, one foreign language, elementary algebra and plane geometry, history, and one science. The requirements in these subjects should be of a character to leave sufficient time in the first three years of the high school course for the pursuit of other studies. Scholars who prove their aptitude in these scholastic studies in the first three years would transfer to the colleges, leaving the high schools free to devote the next two years to the training of their students for life. It will be noticed that the plan provides for a similar treatment of the grammar school course, permitting the transfer to the high school at the end of the present seventh grade of the elementary system (if not earlier). The net result will be a saving of two years for all students who obtain the A.B. degree, tho this degree will not have the same scholastic value as at present. Our elementary and secondary schools will be left free to work out their special problems; our technical schools will become true technical schools; our professional degrees can be more readily standardized; and the teachers in our public school system will secure the required liberal training before they take up their special course, instead of after, as is unfortunately too often the case now. From the point of view of scholarly results, the writer is convinced that we keep our students too long in the leading strings of college methods and that the effort to remedy this has introduced into our colleges methods of instruction which do not belong there. The American student is certainly not the inferior of his European colleague in natural gifts for scholarship, and if Germany, the land of scholars, can send its young men into the university at the average age of twenty we can do likewise. Long and familiar acquaintance with the

German system has convinced the writer that the eminence which that country has attained in scholarship is due, in a very large measure, to the fact that its young men are permitted to enter the fields of research before the inquisitive instinct has been dulled and at an age when it is peculiarly active.

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VI

THE PLACE OF THE SOCIAL SCIENCES IN COLLEGE EDUCATION

Every teacher ought to have some theory of the relation of the subject he teaches to the whole educational aim and process. This is especially true of the college teacher at a time, like the present, when momentous changes in social conditions and viewpoints are insistently demanding that the college justify its existence. It is impossible, needless to say, for a college teacher to reach even a tentative theory of the educational function of his subject without first discovering what he thinks the function of college education as a whole is, or is to be, in view of the spirit and changing needs of the time. Any adequate discussion of the place of the social sciences—economics, sociology, political science, history, psychology, and ethics—must therefore be prefaced by some tentative inquiry, however brief, as to what the twentieth century college in America should primarily aim to do.

Educational orators are fond of telling us that the fundamental function of the college is to build character. Now this is neither a sufficient definition of college function nor a very significant one. It would perhaps be a mere quarrel with language to say that character is an organic personality, which grows, and not an edifice that can be erected brick by brick and board by board by any sort of educational masonry or carpentry yet devised. It is much to the point, however, to suggest that the term character has been so terribly overdriven, by amateur and professional educators alike, that in its jaded indefiniteness it has ceased to retain any quick, concrete meaning to the man who demands for his educational aim an actual goal and not a fanciful pot of gold on the end of an academic rainbow. Perhaps all we can hope to do is to find another shibboleth which in its turn can be worked

overtime. Certainly "character"—mere general, abstract character—as it is so often ladled out to us by pedagogical purveyors, and sometimes by religious idealists, is not of high utility. For the most part it connotes, apparently in the mind of the speaker, and almost surely in that of the average audience, simply "goodness." The great query put to the individual today is not "Are you good?" but "What are you good for?" Between being good in the old characteristic sense and being good for something there is all the abyss that is conventionally supposed to lie between theory and practise. It is clear that neither "goodness" nor "character" will serve the great social needs of the twentieth century unless exprest and realized as efficiency. This is the term our chapel talks and commencement addresses should substitute, at least for a few years, for the threadbare old phrases. And the efficiency upon which we must lay the stress is not merely the ability of the individual to compass his own selfish ends economically, but above all his ability and willingness to contribute real service to the general welfare of the community and country. A "character" which fails to register itself in efficient action may be ever so good in the popular sense and yet fail miserably in those most essential requisites of modern men and women—vocational and social efficiency—the capacity to accomplish valuable social results economically.

A machine can be constructed which will show high efficiency from the very start—at least from the time that, like Kipling's ship, it finds itself. With a human being it is otherwise. He needs more adjustment. Experience and efficiency go hand in hand up to the point where chloroform or a Carnegie pension is prescribed. It goes without saying that the college will never be expected to develop a full-fledged vocational or social efficiency in the student by the time his commencement day rolls around. The business of the college is now, as in reality it always has been, to develop potential efficiency. This does not mean efficiency in general or in the abstract. That would be little better than the old character-formula. Outside a few exceptionally versatile minds, such a thing as general, unspecialized efficiency does not exist. Nor

does it mean "pure culture." Whether we have in mind vocational or social needs, the efficiency demanded today is in large measure specialized aptitude and capacity. Where division of labor and specialization of calling have so ramified into all walks of life as they have, this demand for highly concentrated efficiency is sure to increase. And it is sure not to be limited to the industrial field. As soon as we succeed in escaping the ethics of a doctrinaire individualism into a well-formulated social ethics this demand for definite capacity to do something and do it well will become universal. It is in some ways pitiful to see the number of college students who stand ready for that vague thing they have heard of as "social service," but of which they possess very inadequate notions and for which they have no training. Social service to them usually connotes friendly visiting and religious mission work. Only here and there does the idea sink in that service is a very broad and deep conception, and that the root of it is after all in vocation. If then, defining "vocational efficiency" broadly, we dare say it is the distant end toward which the college should direct its best efforts, we should be allowed to do so without being hauled ruthlessly into the helter-skelter stampede for industrial education, without discrimination as to time, place, or circumstance.

To say that the business of the college is to develop potential efficiency is far from a demand that the college be transformed into a group of administratively related technical schools or courses. A perception of the inadequacy, if not the downright erroneousness, of the old formal discipline and character-building ideas does not commit us to the logical necessity of eliminating from our college aims that of affording a general educational basis for later technical and professional instruction; nor does it mean that we shall stand ready in cap and gown to confer a bachelorship in the arts upon any one who happens to have completed a certain number of years' study in professional courses, irrespective of his general preparation for such specialization or for the responsibilities of social citizenship.

The time is undoubtedly past when the college, or below it

the secondary schools, can suffer the illusion that any prescribed course in formal discipline can prepare an individual alike for the pulpit or the shop, but we can not afford in the reaction to fall into the equally erroneous doctrine that all subjects are of approximately equal educational value "provided only the personality of the teacher be right," and therefore that "everything depends on the teaching process." It is not logical to assume an inexhaustible supply of ideal teachers, nor is it to be supposed that the average teacher will have such control over his teaching processes that they will be for him an alchemy wherewith he can bring clear wine out of sawdust. The most he can hope for from wooden material is wood alcohol—a very commercial product. Certain subjects are not for the college, however attractive they may be to the young directors of schools of commerce affiliated therewith. Courses in factory management, in detailed railroad finance, in card catalog office systems, etc., are probably necessary to commercial efficiency, and they may, for aught the writer knows, be taught with an element of "culture" in them, but there are nevertheless valid reasons for thinking them out of place in a college curriculum. The theory that all subjects are of the same educative value "if taught as they should be," and that the college curriculum should therefore be thrown open to all sorts of vocational and professional courses, fails in two essential respects. In the first place it fails in perception of the value of foundational courses; and secondly, in its worship of the personality of the teacher and of his teaching processes, it loses sight of the importance of subject-matter—of the diverse value and propriety of different subjects for different educational ends. If the purpose of the college were to train in a narrow, highly specialized, professional efficiency—as most of the engineering schools do, for example—then we should throw the doors wide open to technical courses. But the college has another duty. We must not let any enthusiast lightly relieve us of the conviction that vocational efficiency, and especially that larger efficiency which looks to the bearing of vocational activity on the welfare of society, can not be developed without a broad

and solid foundation, any more than a great telescope can be erected on a sand heap and be expected to behave properly. The business of the college is to provide the foundations of efficiency and not to attempt to extend its operations into the superstructure of distinctly vocational technique. This is what is meant in saying that the function of the college is to develop potential efficiency.

To attempt to ascertain the part any group of subjects, such as the social sciences, has to play in the fulfilment of this college function, what their place in the college world should consequently be, and what should be the specific aim or aims of their teachers, it is necessary to have in mind an outline classification of the main subjects or subject-groups, chiefly in the college, but with some reference to the secondary and primary schools below it and to the technical and professional schools after it. The classification here proposed lays no claim to completeness, originality, or finality. It is constructed simply for the needs of this discussion. If it serves to orientate us somewhat with regard to the place and value of the social subjects, that is all we ask of it.

For our purposes it is convenient to adopt a double classification. On the one hand, studies may be classified into three large "groups," based upon the definiteness or closeness of their relation to vocation, as follows:

1. General foundational subjects
2. Quasi-vocational studies
3. Vocational courses.

On the other hand, they may be divided into three "series," with reference to their primary educational function in each group, as follows:

A. Symbolical studies
B. Cultural studies or "brain-stretchers"
C. Environmental, or orientating, studies.

The accompanying table shows the relations these coördinate classifications bear to each other, and the position of the social subjects in the general scheme.

	Series A. Symbolical studies	Series B. The cultural studies and brain-stretchers	Series C. Environmental, or orientating studies		
			Natural sciences	Social sciences	Literature
Group 1. General foundational studies	The primary and secondary school symbolical studies	Modern language Classics Mathematics Logic and grammar Philosophy Music Art Literature Forensics	Physics Chemistry Physiography Geology Astronomy Physiology Biology, especially organic evolution	History Modern continental English American General government General economics General sociology Psychology Evolutionary ethics	Taught for what it is—a revelation and vision of human life in society
Group 2. Quasi-vocational studies	Such specialization in the symbolical studies as is necessary as preparation for the particular vocational training later to be entered upon	*All* subjects from this point on should be taught in such a way as to be incidentally or secondarily brain-stretchers	Advanced and specialized courses chosen with reference to future calling, but taught also so as to enlarge the student's knowledge of environment and to train in the method of the subject in hand		
Group 3. Vocational courses	Further specialization, as needed, especially in modern languages, mathematics, etc.		Applied science and technology	Applied detailed courses with specific vocational purpose	

The object of dividing subjects into general foundational, quasi-vocational, and vocational groups is obvious. Vocational courses, if admitted to the college curriculum under any circumstances, should ordinarily be allowed to occupy but a small part of the student's time, and that practically only in the senior year. Two good reasons may be given for this conviction. In the first place the colleges as a rule have neither the teaching force nor the library and laboratory facilities for specific and detailed vocational courses; secondly, the introduction of such courses to any great extent is simply an attempt to build the superstructure of vocational training before the foundations have been laid; the more such courses are admitted to the curriculum the less room remains for those prime essentials, courses which lay the foundations both for vocation and for that larger efficiency which may be called social citizenship. The quasi-vocational group, on the other hand, may be given a large place in the last two years of the college. If this be done it virtually means the establishment of the group system in some form, either upon a compulsory basis, or upon the basis of an intelligent, not merely perfunctory, advisory system, so that students by the end of the sophomore year will begin to give thought to the choice of a calling and to laying the foundation most suitable to the calling chosen. All the work below the junior year, and a large part of that of the junior and senior years, under a wise outlook, should consist of general foundational studies. In short the college must seek to perform its chief function by means of studies in the general foundational group primarily, secondarily by those of the quasi-vocational group.

The serial grouping aims merely to bring out the main educative value of the various subjects. The environmental studies are those the chief function of which, on the whole, is to put the student consciously *en rapport* with the physical, vital, and social world he is to live in. The cultural studies and brain-stretchers are the subjects about which the educated man has traditionally been supposed to know something, or which are supposed to be of peculiar value in mental "dis-

cipline." The symbolical subjects are those which give access to ideas and means of expressing them. The basis of distinction between these three series is less distinct than that between the three groups. The serial division is not meant to imply that the symbolical studies may not have some secondary value as environmental studies, or that both symbolical and environmental studies may not be, in their respective ways, brain-stretchers, or again that the environmental studies have no "cultural" value. The outlines of Series A and (to a lesser extent) that of B are purposely left incomplete and indefinite. We do not mean to confine the primary or secondary schools to symbolical studies. Symbolical studies belong mainly to the pre-college stage, but no sharp line can be drawn. Modern language and mathematics will of course be pursued in the college and later, for both disciplinary and vocational, or quasi-vocational, ends.

A distinction, tho not a sharp one, should be drawn between cultural studies and brain-stretchers. The subjects dignified as "cultural" change with the changing ideals of what a liberally educated person should have studied. As a distinct group in the educational world, at least outside the polite atmosphere of young ladies' seminaries, they are destined to vanish. As the field of knowledge widens more and more, and the ideal of social efficiency displaces that of polite individual attainment, no one group of subjects can arrogate to itself the claim of sole possession of the liberalizing function. The purely cultural subjects are the luxuries of education, and should therefore be put at the bottom of a scale of educational values. If time and means must be economized, the cultural studies must yield place to the more utilitarian foundational and quasi-vocational subjects. In the long run we shall find, however, that in emphasizing social utility as our educational aim we shall have gained a deeper and more ethical culture for the individual.

The disciplinary studies, or brain-stretchers, have been, in the past, simply the cultural studies viewed with reference to mental mechanics. Disregarding questions of conventional culture, it is a question whether the college curriculum has

room for courses the only purpose of which is "brain-stretching." The fact that many so-called disciplinary studies have a large orientating power, and can be taught in a way to have still more, will save a place for them; but a subject to retain a place must have this orientating value to a very appreciable degree. Our world contains too many things, throws about us too many relations, a knowledge of which is essential, to allow us to spend much time on brain-stretching in the abstract, the reality of which is hypothetical or at least open to question. Philosophy, logic, mathematics, and science study for training in scientific method, will undoubtedly retain a place, primarily because of their disciplinary powers; but had they not also a considerable orientating value they would have to take rank with the educational luxuries.

The environmental studies hold the strategic position in the coming education. The best mind will be relatively inefficient if it is not stocked with abundant knowledge and understanding of the subject-matter of environment, with which it has to work. It is scarcely possible to over-emphasize this fact. After all, the best way to stretch a mind is to put something into it. This is just where the old formal discipline theory and the tenacious adherence to classics are anomalous when confronted with the needs and aims of modern education. Both the liberal culture idea and that of formal discipline could better subserve the needs of a time when education was avowedly the special privilege of the few. Today, when we ought to hope to make it democratically universal, they are out of joint with the times. Ideas of "culture" and "discipline" were at home in a highly individualistic, aristocratic, and less complex society than we have today. They were fitted to the then existing spirit of education, and the function of the college, for education then was either frankly and avowedly aristocratic and non-utilitarian—the badge of an adventitious leisure class—or it had an out-and-out vocational aim, the training of boys (never girls) for the polite professions. Men who went to college were either men of wealth who wanted to know "what an educated man should know," or they were boys destined for the ministry, for the bar, for medicine, or

for teaching. These callings constituted a sort of vocational aristocracy. A college education consequently lifted a man above his fellows in social esteem, as the possessor of a mysterious something forever beyond the reach of his brothers and sisters who had stayed at home to pay his way thru college. The reader is familiar with the long process of educational evolution which has in part rescued us from this aristocracy-of-learning idea. The growth of the public high schools, of colleges, and of universities needs only to be called to mind. But in much of our education, from the first year of the high school to the last year of the college, about all we have done, until recently, was to substitute a *pseudo-democratic ideal* for the old aristocratic practise. Educational authorities virtually said, "Here is the ideal sort of education for every one; if you can't afford it, or if you think it doesn't meet your particular needs, that is your lookout, not ours." The striking exception to this attitude came in the establishment of the technical schools in the state universities, of state normal schools, and in the differentiation and enrichment of city high school curriculums. The persistence of the old aristocratic notions has been illustrated in the doggedly dictatorial attitude of the colleges toward the high schools with regard to college entrance requirements. In protest against this pseudo-democratic idealism has come the decline of the percentage of men in colleges, of boys in high schools, and the overwhelming demand for the "useful" and "practical" in education. In crude reaction to it, also, came earlier the elective system, based on the monumental faith that a cub freshman or a raw sophomore, inspired or irritated, as the case might be, by the perfunctory remarks of a so-called "adviser," could and would select the courses that would give him the best foundation for future needs. The elective system was only a half step, but it did open the way for changes that are yet to come. Despite advances made, however, and despite the warning movements now so apparent, the old aristocratic ideal is still hanging to our skirts. It is time to shake it off, and to make the college more nearly answer the needs of democracy, industrial, political, and social. Real educational democ-

racy, as well as an aim at real educational efficiency, will take into consideration the fact that youth is short, and that time and means spent in getting an education must be economized by nearly every individual. Instead of providing a so-called ideal culture for the few, it will more and more seek to give an adequate foundation for the vocational and civic efficiency of the many.

In the pursuit of this newer purpose, the college, in order to give the student a needed acquaintance with his future natural and social environment, will have to make more and more use of the studies classed as environmental. Not only is the student going to be turned out into a general social and economic environment, but whatever vocation he goes into will have its own specific surroundings, natural, economic, and social, with which it is desirable he should have some preliminary acquaintance. Moreover, what he does in that vocation, especially if he assumes that leadership which college men are always being told is theirs—apparently by a sort of divine right—will affect the welfare of people in other environments, often quite different from his own. Whether the effect is good or bad will depend upon the extent and quality of his knowledge of, and sympathy with, that other environment. A recognition of the factor of special vocational environment really underlies the present movement toward vocational and industrial training. We must recognize, however, the need of a wider and deeper knowledge of environment than seems to come within the ken of many of the industrial education enthusiasts. It is precisely because the present movement for industrial education contains not only promise of great gains, but possibilities of great mistakes, that every college teacher should ask what the function of the college really is and what his subject has to contribute to the fulfilment of that function.

We have to remember that our environment is above all human, social, in character, as well as material and natural. And this human element in our surroundings is just the most ticklish part of our world, just the part that means most to us in every way, and consequently the part to which we

should devote our most ceaseless study. We may look at the matter from a purely utilitarian, egoistic viewpoint, or from the standpoint of social welfare, but in any case we must admit that functional efficiency will vary not only with brain-stretching but with brain-stocking. It is easy to think of education as the cramming of facts into the student; it is equally easy to fall into the opposite error of assuming that "education is training the student to think" irrespective of what he thinks about or with. Both labor and capital are necessary to the emergence of an economic product. Just so, both a mental process and a knowledge of subject-matter are necessary to the emergence of a mental product. This subject-matter, in most cases, is constituted by the individual's vocational and social environment—the environment in which all his mental processes have to functionize.

We may summarize our thought thus far as follows:

1. The function of the college is to develop potential efficiency.

2. Efficiency is both vocational and social in character.

3. Neither sort of efficiency can be developed without brain-stocking as well as brain-stretching.

4. The brain must be stocked above all with a large and sympathetic knowledge and understanding of environment.

5. To furnish this understanding is the primary function of the environmental or orientating subjects; secondarily, these subjects are very effective brain-stretchers.

Environment is either physical or vital. Vital environment again is either biological or social. It is the business of the natural sciences to give us the necessary knowledge of the physical and biological part of our surroundings. Somewhere, either partly in the high school and partly in the college, or wholly in the college, the student should have an elementary course in each of the sciences noted in the general foundational group. Each of them must almost of necessity have an element that is fundamentally and broadly cultural in the best sense. While there are many vocations that can worry along without a knowledge of astronomy, say, it is quite likely that the student who has acquired the interests which that science

can give will be a more broadly efficient worker than the student who has not acquired these interests. Every student should have not only a course in laboratory science, but above all a course in the history and present status of theories of organic evolution. Indeed it is a question whether such a course could not with equal propriety be classed among the social sciences as among the natural sciences. Modern thought and literature are so permeated by "evolution" that it is part of the mental atmosphere of practically every individual. At the same time comparatively few persons, even among the educated, know what evolution is, or how intricate and unsettled the questions of its method. Moreover, false and jump-out-of-the-box conceptions of evolution are a fruitful source of error in popular, and in not a little supposedly scientific, reasoning upon social matters.

Beyond the general foundational stage the individual natural sciences assume very definite quasi-vocational and vocational significance. They will be elected by the college student as the needs of his future vocation, and the demands the general foundational subjects must make upon his time, dictate.

Keeping in mind the primary purpose of the college, it is clear that the importance of the social sciences is even greater than that of the natural sciences. Just to the extent that knowledge of society with its great backgrounds of anthropological and ethnological origins, and of history, and with all its psychological, moral, legal, and economic forces and complex interactions, is necessary to the efficient functionizing of the individual in society—to that extent, at least, must the social sciences be given a place in the curriculum, and must students be directed to their choice. To that extent at least, be it noted, for let us not forget that the social subjects have a disciplinary and a deeply cultural value, comparable, some of their more enthusiastic sponsors will dare think, to that of Latin, mathematics, or pure philosophy.

The foundational study of the social sciences would include, as indicated in the table, three full-year courses in history—one each in English, American, and modern Continental

history—and full-year introductory or general courses in economics, government, and sociology, together with a certain amount of general training in psychology and evolutionary ethics.

No question will arise about the functional power of history to put present social environment in proper perspective; and few will question that the general courses mentioned are primarily the best for this purpose. How much of this general foundational history can be covered in the high school and how much in the college we can not attempt to say, further than to express the opinion that the history taken below the third and fourth year of the high school, as ordinarily taught, can not be relied upon to assure even a beginning of that historical sense which these subjects when taught in college ought certainly to develop. Again what history is to be taken beyond that indicated in the general foundational group, is a question of the needs of future vocation into which we can not here enter. The essential point is that two or three general college courses in history seem to be the minimum necessary to lay the general foundations for an understanding of the traditions and institutions, whether legal, political, economic, or that vague thing we call "social," which constitute the warp of our social fabric—the statically vital principle in our social environment.

Little question will arise with regard to the title of psychology to a place in the environmental studies. We may assume that the psychology taught is modern—recognizing in some measure that the individual and society are but two sides of the same shield. Nor will there be much question with regard to ethics, inasmuch as we have prefixt it with the qualification "evolutionary." If the old "systematic" ethics be taught, it will have to find a place among the cultural or disciplinary studies.

There remain of the foundational social sciences economics, government, and sociology. That something of all these is necessary even to a superficial acquaintance with social environment, most will grant. But as to what phases of them should be offered in this general foundational group, there is

room for diversity of opinion. Take economics for example: assuming that the student can devote to it three periods a week for a year, what, out of all the riches of his material, should the teacher present? Some instructors devote this full year to economic theory, either from personal love of that fascinating subject or from conviction that "students must be led to think" and that "there is nothing like theory for that purpose." Such teachers probably unconsciously stand on the doctrine of formal discipline. They emphasize the brain-stretching function of economic study, but fail almost totally to grasp the more essential nature of their subject as a revelation of the significance of the facts and relations of our every-day economic environment. There could be no economics without economic theory. That all will grant. But of what avail is it that the student be able to state with precision the productivity theory of interest and to compare it with the exchange theory, if he is innocent of the most elementary knowledge of the actual conflict between capital and labor, or that he can work his way without fallacy thru intricate mazes of theory with regard to capital and capital goods, capitalization and "time-discount," and the "synchronizing" of production and income, if he is ignorant of the difference between common and preferred stock and knows nothing of the actual corporate organization of industry today? One trouble with pure theory devotees is that they assume on the part of the student a knowledge of the world which he does not ordinarily possess. At least this is true so far as elementary or introductory courses in economics are concerned. If the function of the college is to produce "scouts," to use Professor Pearson's term,[1] certainly the scout-to-be should have some training in social topography. The more knowledge of the actual lay of the land he can get before he goes into it the better. Now by far the greater part of the "scouting" to be done in the future is not military and technical scouting but economic and social. Great advances in science and technique are in store for us, undoubtedly, but the world's greatest need now is to make the advances already won more really

[1] See his *National life from the standpoint of science.*

and uniformly effective in an enlargement and enrichment of human life. We need, both individually and collectively, to learn how to use our newly created material resources. If there is a more fundamental pair of facts in society than economic value and the economic scarcity upon which it depends we have yet to discover it. "Getting a living" may be a "sordid" matter, but after all it is the thing that takes most of our time, thought, and energy. If we can put a little intellectual curiosity, perhaps even a little romance, into it, it will be a more enjoyable process. In our more spiritual and pious moments we speak deprecatingly of the "commercialism of our age," and of the "gross materialism of the American people"—with whom most of us are glad enough to associate—yet it is a question whether a great proportion of us have much of an understanding or appreciation—much of a guess even—concerning the real nature of this almost infinitely complex, quasi-competitive, semi-monopolistic industrial society of ours. More than that, we ordinarily have little or no realization of our place in it, or of the real meaning of our simplest economic activities. With all its frictions, misadjustments, injustices, failures, and with all its magnitude, its achievements, and its marvelous organization, the great commercio-industrial world in which we live is a thing to fire the imagination, and to stimulate the keenest scientific desire for knowledge. There is needed, to be sure, a new Herr Teufelsdröckh to spread out in panorama before our mind's eye the whole seething mass, and make us feel, if not comprehend, a little of the true inwardness of it. We need not wait for another Carlyle, however; it is within the province and the power of every college teacher of economics worthy his place to give some slight vision into the real meaning of the economic struggle, and to try to put light and human interest into this stale prose affair of earning bread and butter and filching jam to go on the butter. This means of course that the teacher of economics is going to fail of his larger opportunities if he shuts out of view the ethical phases of his subject.

The importance of the task of the instructor of economics

is to be measured by that of the economic environment, to which it is his function to introduce his students. The efficiency of his work will depend not only upon the brain-stretching pursuit of economic theory, fundamentally essential as that is, but also to the extent that economics is for his students a true environmental or orientating study, dealing with the actualities of economic life today.

The needs of two classes of students should, if possible, be met. Comparatively few students think they have time or need for more work in economics than that afforded by the general elementary course. It is quite likely that a keener insight into their future vocational and civic needs would lead many of these individuals to go on to other courses in economics, but we may well grant that a large number of students must needs devote their time to other lines of study if they are to get the proper foundation for future calling. Such persons simply do not intend to be, and will not be, scouts in economic investigation or industrial legislation. The other class comprizes those students who to some extent specialize in economics because their prospective vocational needs require a larger basis of economic knowledge than can be gained in a general course. Now these two classes of students need different sorts of introductory courses. The one needs as wide (even tho necessarily superficial) knowledge of economic and industrial phenomena as can be given in a year, after the minimum amount of theory absolutely necessary has been acquired. The other class needs more primarily a persistent grounding in theoretical principles, but always with enough reference to the actual economic life of today to give principles a real and concrete meaning. The small college can not offer two separate elementary courses. It must simply do its best to compromise between the needs of these two classes of students. It will not err greatly if it assumes that the more general need is a knowledge of concrete economic environment. The patent and significant fact at present is that hundreds of students, more especially women, are graduated from American colleges every year who have not even had the traditional "thirteen weeks" in political

economy. We can not but think that this is one of the points where the present-day college signally fails to fulfil its function of fitting the individual to meet the world, to give him, or her, self-reliance in it, to encourage and develop critical intelligence—in short, that a most valuable aid in the development of potential efficiency does not receive the attention it should receive.

Turning to government and still confining our attention to the foundational group, it is clear that no student should finish his college course without acquiring a general knowledge of American government and governmental problems, national, state, and city, and without some passing acquaintance with the general outlines of the great constitutional governments of modern Europe. Here again there exists the methodological conflict between the disciplinary and the informational ideas. Instructors trained in one university will devote most of their students' time to the theory of the state; others, trained elsewhere, will go to the opposite extreme of the purely inductive study of "actual" government. A general course in government should afford both views; it should bring in as much theory as is necessary to an understanding of the principles of the governments and problems studied, but, considering that it is ordinarily freshmen and sophomores who take such a course, its main function would seem to be orientating in nature—to afford not only a knowledge of principles but of the way principles work, or do not work, in practise. Indeed one is tempted to think that a college course in dirty politics and corrupt legislatures would be quite as valuable to later civic efficiency as a course in the theory of the constitution.

We come now to what some consider a hopeless field, sociology. No one seems to know what it is or where its boundaries lie. Much less is there any agreement on what a course in sociology, or a textbook in the subject, suppose a satisfactory one ever to be possible, should contain. Much that has been written under the title consists of attempts to prove that a science of society is possible and to evolve the methods by which the subject-matter of such a science should be built up. The case is not hopeless, however: a course in sociology

can at least discourage the idea, all too prevalent, that the term "sociology" can be applied indiscriminately to anything from the boy problem and juvenile courts to charities and municipal sanitation. Desirable as a knowledge of these things is, it may be doubted whether they are in any proper sense part of the subject-matter of sociology. We should be tempted to say that the subject-matter is the theory of society, were it not that the term theory seems to connote something away from the concrete and actual, whereas social theory aims to explain things as they are, and is in this respect somewhat unlike economic theory in its present stage and with its ponderous tho necessary assumption of the static state. A general course in social theory is needed to examine the forces and conditions of social order and social progress. As an undergraduate course, and primarily of orientating value, it should spend little time in worry over sociological method or over the relation of sociology to the other sciences, and drive as quickly as possible to a consideration of the nature of society and to the bearing economic, biological, psychic, and ethnic forces have upon social evolution. Public opinion, social consciousness, imitation, fashion, tradition, custom, conflict, sympathy, selection, contagion, and a hundred other conceptions should be for the student illuminated and illuminating. The facts for such a course are all around him, but their very proximity and familiarity prevent his seeing them in their relations. Whatever the subject-matter presented, however, the teacher of such a course should be less eager to complete a given cycle of lectures or to round out a systematic explanation of society than to stimulate observation and thinking on the realities of social life. Such a course ought at least to bring home to the student a realization of the fact that society is the realm of far more numerous and subtle forces than he ever dreamed, forces which have molded him to what he is and with which he must ever reckon. Perhaps the most important thing the student can get out of such a course is a growing realization of the truism made use of in speaking of psychology—that the individual and society are two sides of the same shield. The undergraduate is most interested in the ethical questions in-

volved in a study of society; moreover, he usually becomes eager to go to the bottom of things as nearly as he can: hence the value of a sociology that delves deeper and more fearlessly than the organic analogy or the social contract theory. On the disciplinary side of the subject it is to be remembered that most students come to college with intense prejudices and preconceived notions of the fitness of things. Sociology is an excellent adjunct to other courses to give the galvanic shock necessary to stir students out of complacency, into a broad, healthy scientific curiosity about the world. Eschewing, for undergraduates, a too rigid adherence to any of the *a priori* and subjectively organized "systems" of sociology, and avoiding entirely the arid reaches of "methodology," it is probable that a stronger educational trinity can not be devised than a course in organic evolution, one in evolutionary ethics, and one in sociology, as here adumbrated.

The teacher of any social science whatever should send his students out not only with larger brains and brains better stocked with knowledge of the world, but also with the habit of healthy curiosity and the habit of letting judgment wait on evidence. Whether the instructor sends his students out with a question mark or a period at the end of their course is a question of pedagogical method, however. We may in any case be reasonably sure that with live people the interrogation point will put in an appearance sooner or later. If an institution can not answer the reasonable demand that it justify its existence, then it should perish, and there is no surer way of ridding ourselves of much old lumber, antiquated rubbish, and many new and evil growths in the economic and social world than to encourage in healthy-minded men and women a fair and open-minded skepticism. It is a vicious plan of instruction that seeks to give the student once for all a closed system of thought, whether in philosophy or elsewhere, and the teaching of the social sciences is no exception to the rule.

Be our opinions what they may as to the attitude of mind which social and economic study should give the student, the basic importance of the social sciences as environmental or

orientating subjects is open to no great question. With them, it may be remarked in passing, a wide study of literature should go, for it is a revelation of life and of society which no "science" can hope to duplicate. We can scarcely hope that all students will be able to take all the courses which we have classified as foundational and environmental, even of the social sciences, but it is at least to be hoped that more will be done to bring to the attention of students the value of these subjects in education for civic and vocational efficiency.

Difficult in some cases as the choice of material for the general foundational courses may be, it is still greater in the matter of choosing courses to follow the foundational stage, in the quasi-vocational group. Remembering on the one hand that the business of the college is to develop potential efficiency, and not trade or vocational specialization, and on the other hand, that efficiency will nevertheless have to be realized mainly as vocational activity later on, and that the student has not time to take an "ideal" college course (which, if taken as a composite of the ideals of the various faculty members, would bid fair to include nine-tenths of all the courses offered) we may see that a weighty problem confronts each department. What courses shall be offered to follow the foundational courses in each subject? From the standpoint of the student the best general answer we can formulate is that given in the tabular classification—advanced and specialized courses chosen with reference to the future calling of the student, but taught also to enlarge the knowledge of environment and to train in the method of the particular subject chosen. From the teacher's standpoint the answer will depend upon his estimate of the resultant of several possible elements of a course—the breadth or generality of the environment of which it gives knowledge, its brain-stretching capacity, its necessity or desirability in preparation for technical study, the demands it makes upon equipment and teaching staff, perhaps also to some slight extent its "cultural" value in the narrow sense, and certainly its cultural value in the broad and liberal sense. The relation of the college to the technical and professional schools will also have to be con-

sidered. Of course if the trend of the times proves so strong in the direction of vocational training as to reduce the college course to three years, either foundational and quasi-vocational courses in college will have to be curtailed, or the professional schools will have to organize their work on a broader basis than is now common among them.

Assuming that the present four years' college course will be able to hold its own, and that the social sciences are going to be given equal facilities with other subjects to develop whatever educational value they may have, what should the department of economics aim to offer in the way of advanced or specific courses? In the first place its aim should be to arrive at as rational a compromise as possible between those persons who demand that the college shall primarily provide "liberal culture" and those who would in effect transform it into a trades school. Assuming that the various social science departments have provided the general foundational courses we have been discussing, and that they have succeeded in getting all the students to take some of these courses and a large proportion to take all of them, the advanced courses should be chosen in answer to the question, "What is going to be the general vocational environment of the student?" Now just as the political science department will conclude that part of this environment is certainly going to be the problems of city government and another part of it business or commercial law with its background of the whole common law and equity, and that therefore courses covering these subjects should be offered, so will the department of economics conclude that in some way it must afford its students opportunity to gain a tolerable knowledge of the labor problem in all its phases, of the problems of capitalism and corporate organization, of economic and industrial legislation, of the organization of business—markets, transportation, middlemen, cost-keeping, etc., etc.—of money and banking, international trade, the tariff, of public expenditure and taxation, and, not to continue the list indefinitely, of schemes of social reform such as the various kinds of socialism, anarchism, and the single tax. Nor will it forget that the time is at hand when appar-

ently the most intelligent citizenship is going to be armed with at least an elementary knowledge of accounting, since many of the most important questions of the day are questions of accounts. Nor again will it forget that one of the great vocations and resources of the country is its agriculture, and that the time is rapidly approaching when the old haphazard, wasteful methods of agriculture will have to give way to scientific farming. Granting that most college graduates at present will have nothing to do with agriculture, it seems probable that a course in the subject might not be without great "cultural" and brain-stretching value to many who have never seen an Illinois cornfield or a Red River valley wheat ranch.

Whatever the courses offered, they will be taught with the orientating function at least as clearly in mind as the vocational. The college will not try to make bankers or financiers out of the men and women who take its courses in money and banking, nor business managers of those who take a course in business organization, nor tax commissioners of those who make a survey of that chaotic mass of antiquities which goes in most American commonwealths by the name of "tax system." Students will select the courses dealing with the environment they expect to enter; they should get basic principles and a preliminary survey, which will perhaps make them technically better workmen later on, but surely give their work, whatever it is, a fuller and more human meaning for them. The theory held to in this paper would exclude most, if not all, of the detailed and highly technical courses offered by the young schools of commerce. Such courses belong to the vocational group, and can not be introduced into the college without crowding out foundational courses, and without impairing both the aim and the method of college education. That aim is to encourage broad civic and social efficiency in whatever vocation the college man or woman enters, and the method is to look at all subjects in their social perspective, broadly, not simply with reference to their effect on the weekly pay envelop.

Somewhere in the undergraduate course, either by the de-

partment of economics or of sociology, should be offered a course in social problems—not problems of charity organization (which belong to the schools of philanthropy) or problems of penology—but the great ever present questions of race, sex, marriage, divorce, population, city life, etc. These can not be treated with even superficial adequacy in the general course in sociology—social theory—nor do they belong there. In fact they can best be approached by students who have had or are having social theory, and can hardly be approached at all by those who have not had a general course in economics. It may be said that no undergraduate can get more than a vague, biased, and superficial view of such great and puzzling questions; but better that than no view at all, and no view at all is just what too many college graduates have—barring hearsay and prejudice.

To secure a wise choice of courses is one of the knottiest problems of departmental administration as well as of student election. The problem is complicated by many conditions. It is harder under co-education—at least if the needs of women are given as much consideration as those of men (they usually are not) and if women are to be encouraged to diverge from the old *via sacra* of classics and "culture." Insufficiency of library facilities, of teaching force, and not least of all of a teaching consciousness on the part of professors and instructors, all may stand in the way of the proper functionizing of the social sciences in college education.

It is the belief that many teachers of the social sciences have neglected to take into view the educational bearings of their subjects in even the rough and imperfect way in which we have attempted it that prompts the writing of this paper. Notwithstanding the phenomenal growth of the study of the social sciences in colleges and universities, their educational value is not yet fully recognized. Here, as elsewhere, specialists are too often content to love their subject, and to get all they can out of the budget for it, to the utter neglect of any consideration with regard to its general position, its significance, or its value in the whole field of education. This is perhaps one reason why a great amount of college teaching is

to be classed with the poorest teaching in the world. A fit pedagogical method for a subject or any special part of a subject can be evolved only from the aim in teaching that subject at all. Teaching is teleological, if anything is. The social sciences—some of them at least, and preëminently elementary economics and sociology—stand in double need: first of having their educative value fairly appraised, and secondly of a pedagogical technique worked out carefully after a due determination of the aim in teaching them. The instructor may discourage his students from perpetually asking such questions as "What is this subject going to do for me?" or "Will this course help me in my business?" but he must at the same time recognize that this student solicitude over the actual value of a study or course is a healthy sign. Moreover he should now and then ask himself "What am I teaching this subject for?" and "Am I teaching it in the best way to accomplish as nearly as may be the purposes for which I teach it?"—always of course assuming that he is not thinking primarily of his salary and that his teaching is not merely a disagreeable adjunct to bookmaking or research.

We should not have the temerity to say that college teachers of these subjects have been much less active in trying to determine their real educative value than have the teachers of other branches. Still the older subjects have gained a fairly determinate and well-fortified place in the curriculum. Economics, political science, sociology, etc., are younger and their nurses and sponsors have been too busy guiding their infants into a vigorous growth and development to pay much attention to any such tame non-essential as a "pedagogical method" or an "educational aim." We proceed too much in the blind faith that anything we hold as a central personal interest must be invaluable as an educative force, irrespective of how it is handled in the classroom. The classicists, the mathematicians, and to some extent the physical and biological scientists, calmly and confidently plant themselves on the rock of formal discipline in the fond old conviction that their respective subjects are the chief things needed to develop the mental traits that distinguish a truly

educated man from a barbarian. The economist, the political scientist, and that dealer in mosaics, the sociologist, can not do that. Their subjects have neither the charm of medievalism, nor do they so much appeal to the desire to get the "practical," nor again do they have, or need, the great material equipment of laboratories which appeals so pertinently to the generosity of donors, state legislatures, and trustees. That the teachers of the social sciences have not altogether failed, however, in meeting, and to a considerable extent in creating, a very real and very large need for the study of their subjects is proved by the actual relative amount of time now granted to them in the curriculums of the better colleges. This very success, together with the rapid growth of the subjects themselves, has carried with it the danger of simply drifting, so far as the question of educational aims and method is concerned.

We must not drift. It is in large part because of our peculiarly American propensity for complacent, easy-going drifting that we as a people have some of the worst social problems any people has ever had to solve. Their solution will require not only organization, investigation, and coöperation, but leadership of the highest order. If the American college can not at least help to supply the leaders, both men and women, equipped with the necessary brains and the beginnings of the necessary knowledge of economic and social facts and principles, it will signally fail of one of its fundamental *raisons d'être*. Let it be remembered that the business of the college is to lay the foundations both for vocational efficiency and for social efficiency. The college today—at least, we are led to think, the small college not a part of some university—is too much given over to the conception that its prime function is ideal-building. Perhaps it is, but it is part of the fundamental position of this paper that ideal-building will not amount to much unless it is coupled to actualities by a knowledge of economic, political, and social life as it is. Ideal-building is likely to head off into dreams and mysticism, without giving us much concrete idea of how we are to actualize the "earthly paradise." Ideal-building, when di-

vorced from environmental study, is likely, moreover, to be in the nature of a static process, that is, to be based upon essentially dogmatic and "systematic" foundations, which in their nature are likely to be uncritically unprogressive and conservative. Changing conditions of life necessitate changing ideals, or at least changing interpretations of old ones. Study of social environment will do as much as any other one thing to encourage the desirable dynamic element in ideal-building.

If there be any large measure of truth in the trend of thought followed out in this paper, the future will see a decided change in the type of mentality manifested by college graduates—a change from what Professor Giddings calls the dogmatic-emotional type to the critically-intellectual, and from mere convivial or austere character, as the case may be, to the cool-headed rationally-conscientious character, and finally from the type that secures coöperation and leadership thru dogmatism and emotional sympathy to that which secures it thru deliberation, discussion, investigation, and rational generalization. If indeed, as Professor Giddings asserts, we must acknowledge that "rational social choice, the formation of true public opinion, and the rational leadership of social activity are and must always continue to be, the function of the few,"[2] it is because the production of this sort of rational efficiency is a difficult matter; and, if the college is today suffering much adverse criticism and is open to the charge of failure in this regard, it may be because it has failed to change its ideals to conform to changing social needs. In its aim at "character" perhaps it has sometimes if not always had in mind the dogmatic-sympathetic type and not the sympathetic-rational type which is almost surely the type which today is and will be the really efficient type in the satisfaction of both vocational and social needs. In the development of this sympathetical and rational efficiency the social sciences are to play a leading part.

A. B. Wolfe

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[2] *Descriptive and historical sociology*, p. 350, 351.

VII

CURRENT EDUCATIONAL PUBLICATIONS[1]

Anderson, Lewis F. History of common school education. New York, H. Holt and company, 1909. 308 p.

Outlines the history and development of the common or non-professional school, and of the science and art of common school education.

Birdseye, Clarence F. The reorganization of our colleges. New York, The Baker & Taylor company, 1909. 410 p.

A reviewer in the *Dial* (April 16, p. 265) while conceding that "much of the emphasis of the book is timely, and some of it commendable," protests "emphatically against the temper and trend of this ambitious volume. We are told repeatedly and variously that the college is a factory—when it is not a department store; that the methods of the great industries and of the trusts are the only ones that can save the situation; that a separate department of administration is what colleges need."

Blandin, Mrs. Isabella Margaret Elizabeth. History of higher education of women in the South prior to 1860. New York and Washington, The Neale publishing company, 1909. 328 p.

Bradford, John Ewing, *ed.* The James McBride manuscripts. Sections relating to the Miami university, 1. Cincinnati, Press of Jennings and Graham [1909] 40 p. (Historical and philosophical society of Ohio. Quarterly publication. 4, 1, January-March 1909)

Brown, Robert Perkins, *ed.* Memories of Brown; traditions and recollections gathered from many sources. Editors: R. P. Brown, 1871, H. R. Palmer, 1890, H. L. Koopman, librarian, C. S. Brigham, 1899. Providence, R. I., Brown alumni magazine company, 1909. 495 p.

Made up of traditions and recollections of Brown University gathered from many sources, including a large number of alumni, old periodicals, and Mr. Anthony McCabe, the latter for many years in the service of the university.

Buffalo public library. Class-room libraries for public schools. Listed by grades. 3d ed. Buffalo, Printed for the Library, April 1909. 166 p.

Contains list of books for grades 1-9 respectively, author-title index, subject index, books suggested for reference libraries in public schools, stories and poetry about children for teachers and parents.

Conference on the care of dependent children, Washington, D. C., January 25, 26, 1909. Proceedings. Washington, Government printing office, 1909. 231 p.

Should the state educational authorities exercise supervision over the educational work of orphan asylums and kindred institutions? Discussion by Elmer Ellsworth Brown, William B. Streeter, Charles Richmond Henderson, Michael Francis Doyle, Mrs. William Einstein, B. Pickman Mann, Henry W Thurston. p. 151-158.

[1] Compiled by John D. Wolcott, of the United States Bureau of Education Library, to which books and pamphlets should be sent for inclusion in this record.

Draper, Andrew S. Addresses and papers, 1908-1909. Albany, New York State Education Department [1909] 180 p.

CONTENTS.—The rational limits of academic freedom.—Desirable uniformity and diversity in American education.—From manual training to technical and trades schools.—The democratic advance in American universities.—The adaptation of the schools to industry and efficiency.—The school needs of a city.—Suggestions to the staff of the Education department.—Agriculture and its educational needs.—Conserving childhood.—Lincoln.

Goldschmidt, Frau Henriette. Was ich von Fröbel lernte und lehrte; versuch einer kulturgeschichtlichen begründung der Fröbel'schen erziehungslehre. Leipzig, Akademische verlagsgesellschaft m.b.h., 1909. 167 p., illus.

Graves, Frank Pierrepont. A history of education before the middle ages. New York, The Macmillan company, 1909. 304 p.

"Prof. Graves . . . makes two facts plain: (1) that education, whether in uncivilized or civilized society, has always aimed at preparation for life through adjustment of the individual to the social order into which he was born; (2) that in this process social progress has resulted from the development of individualism wherever permitted."—*Outlook*, April 17, p. 865.

Illinois educational commission. Tentative recommendations in regard to minimum salaries for teachers. Springfield, 1909. 37 p. *Its* Bulletin No. 7.

McKeever, William Arch. Psychologic methods in teaching. Chicago, A. Flanagan company [1909] 332 p.

"The author . . . sets forth his views in remarkably simple and clear language. . . . The object is to give the teacher an insight into the forces that are employed in developing and training a human being from infancy to old age."—Introduction by J. M. Greenwood.

Misawa, Tadasu. Modern educators and their ideals. New York, D. Appleton and company, 1909. 304 p.

CONTENTS.—Introduction.—J. A. Comenius.—John Locke.—J. J. Rousseau.—Basedow and Kant.—Heinrich Pestalozzi.—J. C. Fichte.—Friedrich Froebel.—J. F. Herbart.—Herbert Spencer.—G. W. F. Hegel.—W. T. Harris and G. S. Hall. "The book practically consists of excerpts from the main works of the thinkers here chosen."—Pref.

Natorp, Paul. Philosophie und pädagogik; untersuchungen auf ihren grenzgebiet. Marburg, N. G. Elwert'sche verlagsbuchhandlung, 1909. 362 p.

CONTENTS.—1. Über philosophie als grundwissenschaft der pädagogik.—2. Individualität und gemeinschaft, eine philosophisch-pädagogische untersuchung.—3. Über philosophie und philosophisches studium.—4. Zum gedächtnis Kants.—5. Was uns die Griechen sind.

Neet, George Wallace. Practical methodology. Valparaiso, Ind. The M. E. Bogarte book co., 1909. 495 p.

Norton, Arthur O. Readings in the history of education. Medieval universities. Cambridge, Harvard university, 1909. 155 p.

The first instalment of a series planned with the view of illustrating, mainly from the sources, the history of modern education in Europe and America.

Pomatto, Lorenzo. Lotte pedagogiche e lotte civili. Torino, S. Lattes & c. [etc., etc.] 1909. 495 p.

Shields, Thomas E. The making and unmaking of a dullard. Washington, D. C. The Catholic education press [1909] 296 p.

"In this book an attempt is made to show some of the things that render school life odious to the children, some of those things that make truants and dullards out of the best of children [and] finally . . . the relationship that exists between industrial processes and home duties on the one hand and the development of the child's mind and character on the other."—Introduction.

Sipe, Susan B. School gardening and nature study in English rural schools and in London. Washington, Government printing office, 1909. 37 p. (U. S. Dept. of Agriculture. Office of experiment stations. Bulletin 204)

A report upon some investigations of methods of teaching nature study and school gardening conducted by Miss Sipe in connection with a recent visit to Europe.

Smith, William Walter. Religious education; a comprehensive textbook. Milwaukee, Young Churchman co., 1909. 509 p.

CONTENTS.—1. The scope and aim of religious instruction.—2. The teacher, his character and training.—3. The child and child-study, or the process of mind growth.—4. The lesson and its preparation.—5. The curriculum.—6. The class.—7. The school and its organization.—8. The history of religious education. "The outcome of a wide demand for a complete handbook, covering fully all phases of religious education in the Church."—Pref.

Sogard, John. Public school relationships; chapters on the interrelationships of the school officers, the teachers, the pupils and the community. New York, Hinds, Noble and Eldredge [1909] 121 p.

Stern, Clara und William. Erinnerung, aussage und lüge in der ersten kindheit. Leipzig, J. A. Barth, 1909. 170 p. (Monographieen über die seelische entwicklung des kindes. 2)

Stevenson, Adlai E. Education and business leadership. Chicago, University extension association, 1909. 16 p.

Sturdy, William A. The economy of education. Boston, J. D. Bonnell & son, 1909. 384 p.

"It is the purpose of this writing to demonstrate the present evils of the educational system of America, and show the need of an American literature based upon American principles of progress, for the introduction of economy in education."—Introduction.

Vargas, Moises. Bosquejo de la instruccion publica en Chile. Obra dedicada a los señores delegados y adherentes al IV Congreso cientifico (1. Pan-americano) 25 Diciembre de 1908, 5 Enero de 1909. Santiago [1909] 453 p.

Watson, Foster. The English grammar schools to 1660: their curriculum and practice. Cambridge, University press, 1908. 558 p.

"The work is mainly bibliographical—an account of the books actually used in schools from the invention of printing down to the Restoration, and of the school curriculum . . . Prof. Watson . . . tells us what teachers did—not what they intended to do—and he passes no judgment on their doings."—Journal of education (London), February, 1909, p. 123.

VIII

DISCUSSIONS

FOREIGN LANGUAGES IN THE HIGH SCHOOL

I read with great interest an article in the March number of the REVIEW on "Foreign languages in the high school." I am not a school-teacher, but have been interested in languages and the methods of teaching them ever since I was in college fifteen years ago. I have also read a good deal of educational literature, have tried to keep abreast with the times, and have given some instruction in language during the past few years. Perhaps, therefore, my point of view as a layman not wholly unacquainted with the subject may be of some interest.

According to the author of the above-mentioned article, foreign languages are studied in the high school for two reasons: first, to obtain practical mastery of the language studied; and, secondly, to help one's English. Latin, he admits, is inferior to Greek from the literary point of view, and to German and French from the practical one. Yet he advocates Latin because of its supposed assistance in mastering the English language.

Such a claim seems to me to have an insufficient foundation. A good knowledge of Latin will undoubtedly help one to understand the English language: so will a good knowledge of French or Anglo-Saxon or German. But that the knowledge of any of these which can be acquired in the high school will be of much assistance in the practical command of English is very doubtful. Three months of English word-study with a good dictionary and a modern grammar will help one's English more than a four years' high-school course in Latin.

Briefly consider Latin from the four points of view of its

connection with modern English pronunciation, grammar, sentence-construction, and word-meanings.

The whole system of English pronunciation with its constant change of accentuation, its peculiar vowels, and its "slurrings," is the very antithesis of the Latin regularity of accent and the Latin full-sounding vocables. Yet the writer of the March article claims that the study of Latin will help in the better pronunciation of English. In view of the facts, how can such a claim be justified?

Then compare Latin and English grammar. How can the former, essentially synthetic in structure, help us *practically* with modern analytic English? Subjunctives and "indirect discourse" are useless lumber: they will not show us how to use our idiomatic auxiliary verbs. Prepositions have taken the place of cases; but our prepositions do not correspond exactly to the Latin cases. A knowledge of the latter will not help us in the practical use of the former: if, for example, you wish to know how to employ the English "of," do not waste your time comparing it with the Latin subjective genitive, partitive genitive, etc., but study it from an *English* point of view. Even that fetish, the accusative case, can be studied very well in the English pronouns, and still better in the modern idea of word-order. The general conception of a direct object is there as easily disentangled as in Latin "am, um (both nominative and accusative), as, os, es (nominative, accusative)" and "a (nominative and accusative)."

Look at such constructions as "he gave me it," "I was given the book," "without speaking," etc. These are just where the difficulties of English lie; and Latin does not help us a bit here. Or consider the precision of the common English "man," "a man," and "the man": Latin with its vague "homo" is again helpless. Latin, too, wholly disregards the significance of modern word-order,—a thing of the utmost importance in English.

Finally, even from the point of view of the practical command of the meaning of English words, Latin is by no means so useful as it is often considered. In the first place, half of the most important English words are derived from Anglo-

Saxon: a good share of the remainder come to us thru French, and are considerably changed both in form and meaning from the Latin originals. The roots, suffixes, etc., of what is then left can be learned almost as well with the help of an English dictionary as with that of a four years' high-school course in Latin. One does not have to learn Anglo-Saxon in order to use properly the prefix "un" or the suffix "ness" or the root "stand."

From all these facts, then, we are justified in concluding that the study of Latin is of very little use to the high-school student in the practical mastery of English. Latin must therefore stand "on its own feet" in its claim to be *the* high-school study. From this point of view it seems to me to have a very poor chance of success: literature and ancient thought speak for Greek; practical advantages and modern thought, for French or German.

J. F. Twombly

Brookline, Mass.

CONCERNING THE EVILS OF CREDIT FOR QUALITY

May I say just a word in regard to the subject discust by Professor Ladd in this Review for March and by Professor Kelly in the issue for May,—the subject of Credit for Quality? In his account of the alleged failure of the system at this University, where it has now been in use for six years, Dr. Ladd admitted that he was merely giving his personal opinion. That he was not voicing the ideas of the majority of our faculty is manifest from the fact that the plan is still in use. In spite of the criticisms offered by Dr. Ladd most of our faculty believe that the system produces excellent results. Professor Kelly's replies to Dr. Ladd's objections are exactly to the point. He has analyzed the situation with remarkable keenness and clearness. Of course those who are opposed to the use of any artificial stimuli to promote scholastic attainments, preferring to rely wholly on moral suasion or the sense of duty, naturally oppose this system. Of course, too, any new plan as first devised is likely to be imperfect.

Changes and improvements will be found necessary. That has been the history of the Credit for Quality idea with us. Since it was first adopted we have made several slight modifications, never, however, losing sight of the fundamental idea of giving credit to whom credit is due. The details have evolved naturally, until we now have a system which we feel is just to the student and helpful to the spirit and life of the institution. Its faults, if faults it has, are, so far as we can see, only those inherent in any marking system of human invention.

Perhaps a few figures based on our last mid-year examinations may be of interest as illustrating the actual working of the plan. In these examinations seven per cent. of all the marks given were A's, which carry .3 extra credit. Twenty-one per cent. were B's, which carry .2 extra credit. This does not mean that seven per cent. of the students will be able to finish in three years, for few of those receiving an A receive it in *all* their subjects. It does mean that about thirty per cent. of our students are receiving *some* extra credit. Of these perhaps four or five per cent. receive enough to enable them to gain their degrees in three years. In view, however, of the present collegiate tendency, illustrated for example by Harvard, where one-third of the students now graduate in three years, this can hardly be called an excessive lessening of the time of academic residence, especially as many of these three-year bachelors stay on for a fourth year, taking the master's degree. The great majority of the other twenty-five or twenty-six per cent. will finish their course a few credits ahead. In some cases this has suggested the desirable idea of returning for a master's degree toward which the extra credits can sometimes be made to count; in other cases the student merely has the satisfaction of having several credits in excess of the requirement, a feeling which tends to self-respect and comfort. Meanwhile to most of us there is evident among the students, as a whole, a sane and healthy pride in doing good work. It is generally realized that this is the wise and thrifty thing to do. This spirit is in marked contrast to that pre-

vailing in some places where it is generally felt that the wise and thrifty thing is to do only enough to "get thru." Our students all feel, even tho they have no intention of finishing in three years, that a few extra credits, like the traditional savings laid up for a rainy day, may prove a valuable asset in case of illness, or of some necessary detention for a time from academic duties. They are thus inspired by what I must say strikes me as perfectly rational and wholly commendable motives to do the best work they can.

Let me, accordingly, assure those who are interested in the experiment we are making that there is every reason for considering it successful. At least that is the opinion of the President and a majority of the faculty of this university.

VERNON P. SQUIRES

UNIVERSITY OF NORTH DAKOTA

IX

REVIEWS

Medical inspection of schools—By LUTHER HALSEY GULICK, M.D., and LEONARD P. AYRES, Russell Sage Foundation. New York: Charities Publication Committee, 1908. P. 276.

To one who for more than twenty years has dwelt in the higher altitude of the academic world but who has come back to the earth and has been thrown into contact with the reform movement and reconstruction work of the public school system, it seems rather strange to discover that the United States of America, the pioneer in so many questions of vital interest to the whole world, has been one of the last of the nations to realize how important it is to take an intelligent interest in the physical as well as the mental development of the children of the public schools. Certainly there is no question that is of more moment for the future of a nation than that of the physical well-being of its citizens.

The children in the German schools are being constantly reminded that the fate of the Fatherland rests with them, not for what they are as children, but for what they will be when grown up into men and women. Parents and teachers emulate with one another in pointing out to the children that health is the best wealth; cleanliness of person and of home is not only strictly demanded, but is a fact; hence, the sturdy German, the sturdy German family, the sturdy German nation. The German schools and the German life are not successful because of an external organization, but in consequence of their solidarity with the character of the nation; and not until it is brought home to every parent and teacher that success in bringing up of children to robust health depends on the co-operation of home and school, shall we attain the ideal for which a nation should ever strive.

It goes without saying that the matter of personal cleanli-

ness as foundation for good health has right along been recognized in this country (in spots); but it was not until very recently that the value of medical inspection of the schools was realized and that steps were taken to rouse interest of the people and the Boards of Education in the physical well-being of school children. Observations made in the train of the change from rural to urban life, and of the steady increase of immigration, gave life to this new movement in the United States, for with these changes in distribution of population there came changes in the development of the children in public institutions. So marked were these changes in development under the different conditions that they attracted the attention of sociologists and teachers, on the one hand, and of the school authorities, on the other; gradually these people began to look into the matter seriously. In consequence, a system of medical inspection has already been introduced into some of the states, and it is to be hoped that the good work will go on, that such a system may be introduced and vigorously enforced by the proper authorities in order that each school community may be protected. The work of medical examining boards is so important that it requires men and women of special training and experience to conduct it.

Medical inspection of schools gives a survey of the aims and results of the work accomplished since this movement was inaugurated. Thru the earnest efforts of the men who have conducted this investigation under the generous auspices of the Russell Sage Foundation, much valuable information has been collected, both from the scientific and educational viewpoint. This information should be of interest and value not only to those directly connected with that work, but also and primarily to persons interested in the future betterment of present existing conditions in the health of our school population. The great argument in favor of a thoro medical inspection of all the children in the schools lies in the fact that the critical years of the young life are spent under the control of the school authorities.

The authors point to the results obtained in other countries, showing the gradual improvement in the conditions of the

schools, due to more satisfactory environment and methods for protecting the children in virtue of which the physical and intellectual development of the school children has risen to a higher level.

If all children were medically examined and watched closely during all the years they attend school, a great deal of sickness might be eliminated entirely, and the number of students unable to complete their education would be greatly reduced. Every school should have a medical examining board, composed of enough men to take intelligent care of the health of the school population. It should have trained caretakers. The teachers should be held responsible for the reporting of all cases of sickness of any sort, when first noticed,—and under sickness should be included uncleanliness. Every school should have a director for physical training, including calisthenic exercises, tug of war, track athletics, football, baseball, etc.; a systematic course of physical training should be made obligatory thru all the school years. And next in importance to the physical director, every school should have an efficient, inspiring musical director. An atmosphere of good cheer, with plenty of good water to drink and fresh air to breathe are the best things, next to good food, for the foundation of good health. What the Greeks considered of prime importance in the education of their children, we of today make tag-end work. It is not enough to work, work, work. I should feel tempted to throw out of the school curriculums some of the rubbish we insist the children must learn, rubbish that chokes the life out of most of them. It would be better that they should learn fewer things and learn those few things better. The child will accomplish more with his books and accomplish it in shorter time, if he can be kept in a healthy, cheerful frame of mind.

It is not enough to have an annual test of the eyes and the ears made, much less sufficient to have triennial examinations; it is not enough to know that the child's teeth are white as snow and his finger nails immaculate. The health of the child is important enough to demand a thoro examination at the beginning of each school term, and visits of school physicians during the term.

From the evidence furnished by Messrs. Gulick and Ayres of the improvement in every school where medical examination is introduced of the general state of mind and body, it is obvious that to extend such examination thruout the schools of the United States is to increase the preservation of the lives of the children and to promote their usefulness as efficient, desirable citizens.

THEODORE HENKELS

NEW YORK

The revival of scholastic philosophy in the nineteenth century—By JOSEPH L. PERRIER, Ph.D. New York: Columbia University Press, 1909. 344 p. $1.75 net.

This very scholarly and agreeably written book traces the story of an important movement in modern thought. The movement is nothing less than the revival under unfriendly conditions of that scholastic philosophy which held the western world so long in its grip. In revolting against scholasticism, Europe threw away the good as well as the evil in that famous system. It is very interesting to find in Dr. Perrier's pages how the many elements of scholasticism that had permanent value are yet able to reassert themselves in important ways. Students of philosophy will not overlook this book.

Principles of politics—By JEREMIAH W. JENKS, Ph.D., LL.D., Professor of Political Economy and Politics in Cornell University. New York: Columbia University Press, 1909. 187 p. $1 50.

The George Blumenthal Foundation at Columbia University has already produced several important books on American politics. Both the founder of this important fund and those who are administering it may well be satisfied with the admirable beginning that has been made. The volumes which have already appeared containing the lectures by Dr. Albert Shaw and by President Woodrow Wilson are well known and have been widely read. The lectures for 1908 now offered in this volume by Professor Jenks are quite as interesting as those which preceded them. They are marked, as were the lectures of Dr. Shaw and of President Wilson, by intense

practicality and by a host of concrete illustrations and of applications of political principles. This fact is itself worthy of notice, for it indicates how wide of the truth is the crude generalization that asserts a lack of practical knowledge on the part of academic students and teachers of political subjects. No one who has followed these Blumenthal lectures and no one who reads any of the volumes growing out of the course can be for a moment in doubt upon this point. On such very practical and concrete subjects as Representation, Legislation, and Administration, Professor Jenks is as practical as it is possible to be in his discussions.

This book of Professor Jenks deserves a place in every collection of books on contemporary politics.

Mr. Foster Watson is one of the most learned writers on the history of English education. His learning does not always contribute to making his books readable, but between his covers is always to be found scholarly material in abundance. No serious student of the history of English education will overlook his *English grammar schools to 1660,* which is really the first treatment of the subject in anything approaching an accessible volume. (G. P. Putnam's Sons, 1908. 548 p. $2.00.)

In a group of publications from the printing house of Mr. Bardeen come three Cornell Study Bulletins by Professors De Garmo and Whipple, as well as Miss Williams' report on *English teaching in the United States* and one of Mr. Bardeen's own inimitable bits of writing entitled *John Brody's astral body.*

Control of body and mind, by Frances G. Jewett, is an attempt to set out in simple form the working of the nervous system. The illustrations are better than usual in a book of this type. (Boston: Ginn & Co., 1908. 267 p. 50c.)

America at college, by Robert K. Risk, is journalism rather than literature. Mr. Risk, who is a Scotchman, writes in interesting fashion and with like touch on the life and customs of some dozen American colleges and universities. He falls

into the mistake of speaking of the non-governmental university as "private" and he does not grasp the fundamental distinction between college and university. These deficiencies render his criticisms less valuable than they might otherwise be. The book itself, however, is well worth reading and contains many interesting personal touches. (Glasgow: John Smith & Son, 1908. 214 p. 3s. 6d.)

One can not help wondering at the temerity of a man not himself a special student of higher education who endeavors to pass in review a half dozen typical institutions of the higher learning. Mr. John Corbin has done this in his volume *Which college for the boy?* He gives a good deal of more or less accurate information, but we are disposed to criticize his leading generalizations. The book, while very readable, is rather suggestive than definitely instructive. (Boston: Houghton Mifflin Co., 1908. 274 p. $1.50.)

Mr. Ernest H. Abbott has reflected on a good many useful subjects in a helpful way in his little collection of essays, entitled *On the training of parents.* The art of being a parent bids fair to be lost, in America at least, before long, and if Mr. Abbott's volume can postpone by a little that unhappy day, it will not be without usefulness. (Boston: Houghton Mifflin Co., 1908. 140 p. $1.00.)

The French characteristics of succinctness, clearness, and comprehension are all manifested in the admirable little volume entitled *La philosophie moderne,* by M. Abel Rey. The author is widely and accurately read in the contemporary literature of philosophy, and we commend his book without hesitation to those who would have a trustworthy guide to some of the points of view and methods of treatment which most distinguish the philosophy of today. (Paris: Ernest Flammarion, 1908. 369 p. 3f.50.)

Of the making of books on adolescence there bids fair to be no end, but any book by M. Gabriel Compayré is welcome. His breadth of view and sanity of treatment make his book on *L'Adolescence* an admirable introduction to wider study of the subject. (Paris: Félix Alcan, 1909. 195 p. 2f.50.)

We welcome with unmixt praise the volume entitled *The*

ancient Greek historians, by Dr. Bury, the Regius Professor of Modern History in the University of Cambridge. Dr. Bury's fresh and striking treatment of an old and fascinating theme is, it goes without saying, marked by a serene and well-grounded scholarship, and is exprest in a clear and flowing style which continue the best traditions of English scholarship. We like particularly the treatment of Thucydides and the appreciation with which the chapter on Thucydides abounds. It is perhaps one of the interesting academic paradoxes that the Regius Professor of Modern History should write a book which begins with Hecotæus and ends with Polybius. (New York: Macmillan Co., 1909. 281 p. $2.25.)

A very simple, straightforward introduction to the study of civil government, for use by young pupils, is S. E. Forman's *Essentials of civil government.* (New York: The American Book Co., 1909. 224 p. 60c.)

A little textbook that represents a good deal of hard work and that brings no slight scholarship to the surface of the elementary school is *Nature study by grades,* by Horace H. Cummings, formerly of the University of Utah. (American Book Company, 1908. 180 p. $1.00.)

An old friend in a new dress which is both appropriate and becoming is Chardenal's *Complete French course,* which has served to introduce many thousands of American students to the study of the French language. (Boston: Allyn & Bacon, 1909. 413 p.)

The problem of teaching the elements of mechanics to engineering students is a serious and difficult one which confronts a large number of institutions. No textbook dealing with the subject that has reached us is better or simpler than Hancock's *Applied mechanics for engineers.* (New York: The Macmillan Co., 1909. 302 p. $2.00.)

A useful selection of critical essays is furnished by the little book entitled *Nineteenth Century English prose* by Messrs. Dickinson and Roe, of the University of Wisconsin. The selections range from Hazlitt to Arnold. (American Book Company, 1909. 492 p. $1.00.)

X

NOTES AND NEWS

Exhibit of the Bureau of Education at the Alaska Pacific Exposition

The plans of the Bureau of Education for an exhibit at the Alaska-Yukon Exposition which will be open from June 1 to October 12, at Seattle, have been formed with special reference to the interests of teachers and officers of education.

In the section assigned to the Bureau in the government building, a conference room has been fitted up where visiting educators will find ready welcome. Writing materials will be at their disposal and arrangements may be made for professional conferences at stated hours. In this room exhibits illustrating the work of the Bureau itself will be placed, including, in addition to the annual reports and bulletins of the Bureau, a select reference library for teachers, with a classified catalog. Copies of this catalog will be furnished to educators upon request.

The space surrounding the conference room is given up to exhibits pertaining to the uplift of rural schools. These exhibits have been collected under the direction of a special committee of the Bureau [1] appointed by the Commissioner of Education, and assisted by expert collaborators in different sections of the country. The purpose of the collection is to show by concrete examples what is actually being done for the improvement of rural education, and thus to furnish an index of progress and also helpful suggestions.

The movement for better schoolhouses, which has spread to every part of the country, largely thru the efforts of women's clubs, is illustrated by the model of an improved type of district schoolhouse,—contributed to the exhibit by

[1] Committee on exhibit of Bureau of Education at Alaska-Yukon-Pacific Exposition: Mr. William Dawson Johnston, chairman; Miss Anna Tolman Smith, secretary; Mr. John D. Walcott.

Francis G. Blair, State Superintendent of Public Instruction in Illinois,—and also by graphic presentations of the consolidated rural school. For the latter the office is indebted to F. A. Cotton, former State Superintendent of Public Instruction in Indiana.

The advantages of the consolidated rural school are fully understood and the system is rapidly spreading; for a long time to come, however, the single district school can not be entirely done away with, even if this were desirable. The model schoolhouse opens up the possibility of great improvement in the primitive type of rural school without a radical change of organization.

A question of absorbing interest at the present time is that of the establishment of rural high schools having provision for training in agriculture, domestic economy, and manual arts. The legislatures of a number of states have recently authorized the establishment of schools of this type, and several such schools are already in operation. These initial efforts at the working out of new problems have brought about a clearer understanding of their relation to the established course of study, and have also exposed the weakness of much of the instruction that is carried on in rural schools. Hence, the timeliness of exhibits illustrating effective methods of treating those elementary subjects that lend themselves readily to concrete presentation. The possibilities of geography as a means of arousing interest in immediate surroundings, and in the conditions of the exchange of products, is illustrated by the typical exhibit prepared for this occasion by Mr. Amos W. Farnham of the State Normal and Training School, Oswego, New York.

Nature study appeals to instinctive interests in the mind of a child which are not reached at all by the first stages of more formal studies. Germany and England have led in provision for this subject, and here and there, it has been well worked out, in our own country. The course of instruction in nature study included in the exhibit, was contributed to the Bureau by Miss Lucy L. W. Wilson of the Philadelphia Normal School, who achieved reputation by similar presentations at

the Universal Exposition in Paris, 1900, and at the Nature Study Exhibition held in London in 1902. The suggestions of this course can readily be adapted by teachers of rural schools to the material which nature offers in their several localities.

Nature study may be regarded as the first step in a rational endeavor to promote interest in agriculture as a branch of study for secondary schools. Practical efforts in this direction in this country are for the most part in the experimental stage, and therefore can not, at present, be represented in systematic form or order. Various aspects of this subject are illustrated in the exhibit by monographs and leaflets, and by photographs showing the equipment for teaching agriculture, classes at work in field and laboratory, etc. This material is not confined to secondary schools but includes every stage of the instruction from elementary schools to colleges, and thus emphasizes the unity of purpose thruout the whole range of the instruction.

The equipment of rural schools for the study of nature, commercial geography, and kindred subjects is vastly increased by traveling museums. Specimen museums or collections have been supplied to this exhibit by Professor D. C. Ridgley of the State Normal University, Normal, Illinois; Mr. W. P. Wilson, Director of the Philadelphia Museums, and Mr. George H. Sherwood, Curator of the Museum of Natural History, New York, and by the National Department of Agriculture.

The progress made in art instruction during the past two decades is perhaps the most impressive fact in the history of public education in this country, but in this progress rural schools have had little part. The inequality between city and country children in this respect is a national loss, for, without early training, the esthetic sense lies dormant and the higher forms of industrial art are unattainable. The principles and methods of instruction in this branch must be the same for all schools. Rural schools, however, have at hand a wealth of material for the study of natural forms and color harmonies. Hence, in the presentation of this subject in the ex-

hibit of the Bureau, special prominence has been given to the use of such material as a basis of art instruction. The subject is presented under two aspects: First, selected work of pupils to illustrate what may be accomplished in rural schools under competent instruction. This collection has been arranged to show all the different mediums commonly in use in the schools, and to suggest a course in art instruction arranged to follow the calendar and come as far as possible into connection with nature study, language, and history. For this instructive presentation, the Bureau is indebted to Mr. Henry Bailey of North Scituate, Massachusetts, one of our national delegates to the International Congress on Art Teaching, London, 1908. The second aspect of art instruction, namely, that of the adequate preparation of teachers for this branch, is presented by a series of selected plates, the work of students in the Massachusetts Normal Art School.

Closely related to the problem of art instruction for common schools is that of the forms of manual training adapted to pupils of high school grade. This problem is practically the same for all communities. Hence, the solutions worked out under favorable conditions are universally instructive. They are illustrated by several collections in the Government exhibit including a graded course of manual training equally adapted to city and country high schools. This series was selected and arranged by Dr. Calvin M. Woodward, influential in originating manual training high schools in this country. The bearings of industrial art education on home and social life are also brought to view by a few exhibits showing the application of design and modeling in the decoration of textiles and comparatively inexpensive articles intended for home use or decoration. These articles, as the labels show, have all been contributed by well-known promoters of industrial art equally interested in its educational and commercial aspects.

In addition to these features, the exhibit of the Bureau includes illustrations of recent experiments for extending the scope or strengthening the social influence of rural public schools. Many of these experiments will undoubtedly be

transient, but they all arise from impulses that are working valuable and lasting changes in the spirit and trend of public education.

It is hoped that teachers and school officers will freely avail themselves of the opportunity thus afforded by the National Bureau for the study of special features of education, and for professional meetings and conferences. The section will be open at all times. Special appointments for the conference room, and documents intended for circulation, may be secured by addressing Mr. James C. Boykin, Acting Representative of the Interior Department at the Alaska-Yukon Exposition.

The National Education Association at Denver

The program bulletin for the Denver meeting of the National Education Association gives evidence of unusual care in its preparation on the part of President Harvey, Secretary Shepard, and their associates, and gives ground for the assurance that the meeting will be on a par with the best of its predecessors. The general sessions open on the evening of Monday, July 5, and deal with such practical topics as industrial education, citizenship, rural school conditions, public health, and normal education. The council will hold its first session on the morning of July 3. The attendance from the Middle West and the Southwest is sure to be very large and enthusiastic, and it is to be hoped that the states on the Atlantic and Pacific seaboards will send delegations of unusual size.

The Study of the English Bible

In this Review for April, there was published in full the Report of the Conference on Uniform Entrance Requirements in English, which report will guide the secondary school teaching of English thruout the United States for the years next following 1912. Perhaps the most important single feature of that report has thus far escaped general attention. For the first time recognition is given to the desirability of studying the English Bible in the secondary schools as a literary

classic, and parts of the Bible having particular significance for this purpose are indicated. It may be hoped that with this new support and stimulus the youth of the United States will be led back to the familiarity with the form and content of the biblical literature which their parents and grand-parents possest, but which they have for the most part lost. Few things are sadder than the destruction and dissipation of that familiarity with the English Bible which has so long been the shaping force in English literature. The pathetic internecine warfares of the several Christian sects have steadily discredited the significance of the Christian tradition as a whole. It may be that the time has now come when the narrowness and pettiness that have resisted the study of the Bible, unless such study could be twisted to partisan and sectarian ends, will be overcome by that broader and more catholic spirit which aims to preserve the knowledge of the greatest of English classics and its literary influence.

The Problem of College Admission

The newspapers report an exceptionally important contribution to the permanent solution of the ever present problem of college admission which has been made by Columbia University. The first public statement concerning the plan was made by President Butler at the last meeting of the Schoolmasters' Association of New York and vicinity. Beginning with the next academic year the faculties of Columbia College, of Barnard College, and of Applied Science are to discontinue their separate committees on admission and to unite in the constitution and maintenance of a single committee on undergraduate admission for the whole university. As Chairman of this committee, Dr. Adam Leroy Jones, now a preceptor at Princeton, has been appointed, and he will have, for the present at least, no other task or academic duty than to study questions which present themselves in connection with the admission of undergraduate students, and to serve as the executive officer of the new committee. It is proposed in the first place that this new committee and its chairman shall deal much more largely than has hitherto been the case with appli-

cants for undergraduate admission as individuals. The human element will be emphasized and brought to the fore, and the transition from secondary school to college will be treated not as an end in itself or as involving some great intellectual and moral revolution, but simply as one stage or step in the educational progress and development of the candidate.

Columbia University is one of the few remaining institutions which insists upon an examination of all candidates for undergraduate admission, unless they are transferred with advanced standing from other degree-conferring institutions. A vital feature of the new Columbia plan is that hereafter each applicant for undergraduate admission will be required to present a certified copy of his secondary school record, and weight will be given to that record, in connection with the results of his formal examination, when the question of a candidate's admission is past upon. For example, if a candidate has spent three or four full years in one and the same secondary school, weight would be attached to a record of his performance there, equal to that attached to the examination itself. If, on the other hand, he had past his secondary school period in several different institutions, doubtless somewhat less weight would be attached to the record of his performance. Columbia will maintain its present opposition to the certificate plan of college admission. It intends to insist upon the educational advantages which attach to the college entrance examination, but at the same time to meet the just criticisms leveled against that examination when it is used as the sole test of a candidate's fitness for admission to college.

The announcement of the new Columbia plan was commended by the secondary schoolmasters who heard it, in most unqualified terms. One speaker hailed it as the long-hoped-for solution of the problem of college admission; a solution which did not yield to the seductions of the certificate plan, but which relieved the examination system of the serious criticisms so often lodged against it. The working of the new plan at Columbia will doubtless be watched with keen interest in all parts of the country.

It is also noteworthy that it has been thought worth while to detail an experienced college teacher to give his entire time to the matter of undergraduate admissions, and not merely to carry this task as an additional burden to an already full measure of classroom or laboratory work with college students. Since at Columbia undergraduate students are statedly admitted in February as well as in September, and since in addition to the College Entrance Examination Board's examination in June Columbia itself maintains examinations in September and January, the work of admitting undergraduate students goes on thruout the academic year.

A Nucleus for a Good Home Library

At the request of *Leslie's weekly* the editor of the EDUCATIONAL REVIEW has made the following list of books, or types of books which, in his opinion, should form the nucleus of any collection, however small, for the use of an American home which intends to surround its children with the best influences, and to teach them to distinguish between the first-rate and the second-rate, between the real and the sham, between the uplifting and the vulgar.

1. The English Bible, in one of the editions issued by the Oxford University Press, with its apparatus of maps, concordance, historical and geographical material.

2. A standard dictionary of the English language—not an out-of-date edition or a pirated reprint, but a thoroly modern dictionary. The *Century dictionary,* tho expensive, is the best, as it combines many features of an encyclopedia with those of a scholarly dictionary.

3. A modern, well-printed, and well-made atlas of the world, containing a good supply of large maps, with full geographical, political, and physical data.

4. Standard editions of the four great world poets—Homer, Dante, Shakspere, and Goethe.

5. The poems of Milton, Wordsworth (Matthew Arnold's selections), Tennyson, and Browning.

6. The essays of Emerson and of Matthew Arnold.

7. *The Federalist* (Lodge's edition), as indispensable for a knowledge of our government.

8. Writings and speeches of Abraham Lincoln (Nicolay and Hay's edition in two volumes).

9. A selection of standard histories of Greece, of Rome, of medieval Europe, of England, and of the United States, as well as at least one historical or reference book on the Orient and on South America.

10. A thoroly modern and well-written standard textbook or other exposition of physics, of chemistry, of astronomy, of botany, of zoology, of mathematics, of psychology, of economics, and of ethics. Those contained in the American Science Series, published by Henry Holt & Co., are probably the best.

11. A collection of typical English poetry, such as is found in Ward's *English poets,* and of American poetry, as found in Page's *Chief American Poets.*

12. Standard modern histories—not too extended—of Germany, of France, of Italy, and of Russia.

13. Standard editions of the best English novelists, including Thackeray, Dickens, and George Eliot.

A library with this material as a nucleus would be built upon a solid and sound foundation.

Many American students of education will regret to hear of the recent death of Mr. Herbert Courthope Bowen of England. Mr. Bowen was graduated with distinction at Cambridge in 1870, and at once devoted himself to school work. He was at one time principal of the Finsbury Training College for Teachers, and in that post was the leader of the first organized attempt in England to give training to intending teachers in secondary schools. Mr. Bowen was a frequent contributor to educational literature, his best-known book being his *Froebel and education thru self-activity,* published by the Scribners in the Great Educators Series.

EDUCATIONAL REVIEW

SEPTEMBER, 1909

I

COLLEGE REQUIREMENTS IN LATIN AND THE SCHOOL CURRICULUM[1]

"Thou art the man."

One need not be a constant reader of the current educational publications to know that there is widespread uneasiness among the friends of Latin learning. It is not necessary to enter the hall in which the latest assembly of classical teachers is convened to detect the current of anxiety in the atmosphere—on the sidewalk outside even you feel that something or other is not quite as it should be. The octopus has gobbled all but a straggling remnant of the Greeks, and now, alas, the bandersnatch is reaching out after the Latins. Now and then, to be sure, some cheerful optimist drags forth a fresh batch of statistics showing clearly that not all is lost, but rather much gained, and we smile hopefully and congratulate each other and clap our neighbor on the back and go home, knowing all the time, in the deep of our heart, that the case is and remains desperate with no known remedy in our pedagogical pharmacopœia. The worst of it all, perhaps, is our own discouragement. We feel ourselves to be a forlorn hope of classicalism, fighting a losing battle against impossible odds.

Much reflection has revealed a multitude of causes for this state of things. American education is a hybrid thing, a

[1] Read at the meeting of the New Hampshire Classical Association, October 17, 1908.

kind of modern Minotaur, devouring our youth and leaving little but dry bones. With British beginnings and German accretions, it has not yet found itself, nor have we found ourselves in it. College ideals and university ideals are at odds within it, and we have not yet succeeded in blending them. The result is, of necessity, heterogeneous, unsystematic, and wasteful. In a century or so, perhaps, we shall have completed the evolution of an American type of education. In the meantime we must take the consequences of our rash attempt to harmonize two things radically different in nature. That there is something wrong, and very wrong, is admitted in a thousand tacit ways even by those professional pedagogues who hurrah loudest for American ways and methods. What are we to think of the countless "fads," of which our children have been the helpless victims, the "mud pie" subjects, the cross-cuts and royal-road-to-learning methods, which have so widely crowded out the notion of sound culture? They are the blind efforts of men who realize that something is not as it should be, but do not know what, or how or why. Many of them are so wild that a grain of common sense condemns them on sight, and yet they find sober advocates.

We are reminded that this is an age of materialism, and that America is too young to be anything but exceedingly materialistic. Our boys want to study something practical, and their fathers demand for them a training which will repay its cost, principal and interest, in hard dollars. Culture is very well indeed, no doubt, but it will never pay water rates and coal bills. Nice appreciation of golden Latinity will perhaps ornament a man, but what we want is something which will buy him bread and butter to spread it with. Let us have practical education,—away with the dead tongues! That this position is logically unsound as well as gross makes no difference to the practical mind of the American. We schoolmasters know that the so-called "practical subjects" have no more real earning power than the culture courses. German and French are rated as practical. So are economics and the history of banking and the like. Mathematics has a high place among the practicals—and so on. But the veriest

tyro knows that in more than ninety-nine per cent. of cases the college graduate earns nothing with the knowledge he has acquired in his "practical" courses. Again, does the collegian who wants a sound body go to work to develop it with "practical" exercises? Does he drive stakes or beat carpets to get his arms and trunk into condition? Yet the "practical" argument has overwhelming force in our education in directing the choice of courses.

The college instructors, who are our natural mentors, have a way of bringing the matter a little nearer home to us of the secondary school. We are told with varying degrees of politeness that we are ill-prepared for our work. We have the courage to take up the task of instructing beginners with a little more than half the necessary equipment. We do not begin to rank with our European colleagues in point of breadth and depth of scholarship. Many of us do not know what the vocative of *deus* is, nor do we know where to look for the last word on the subject. We are, in a word, enthusiastic and conscientious, but ignorant.

Worse yet, the reproachful voice goes on, our pupils go up to the colleges with no real interest in Latin, and it is our fault. We are a band of dry-as-dusts, or else we are intent upon marrying and giving in marriage, and care not at all whether our pupils are touched with the divine fire. Many of us too are not really teachers—we are teaching for a year or two only, until something better turns up, or until we can get together money to study law or divinity or medicine. Naturally we have no great interest in classical studies ourselves and less to communicate to our pupils. And so we make our Latin work dry and uninteresting, and many a potential Bentley or Lachmann is nipt in the bud by the cold blast of our indifference.

But that is not all. As a natural consequence of such shortcomings and deficiencies, we do not get good results. Our boys, when they do get into college, are wofully ignorant of many first principles. Many of them do not seem to have any real grasp of the elementary syntax. Some of them think that Augustus reigned as late as 500 or even

1500 A.D. One professor in a New England college, a most fair-minded and charming man, addressing some secondary teachers not long ago, remarked in a very modest and winning way: "As a matter of fact, you do not send your boys up to college with the ability to read easy Attic prose at sight." No doubt the same thing is true of Latin, and holds good of the candidates for other colleges as well. Our methods, then, are not adapted to the task before us, and we do not do our work well enough to suit the colleges.

It seems, then, that the colleges are not satisfied with us. On the other hand, most of us are thoroly dissatisfied with the colleges, and many of us sincerely believe that they are largely, in fact primarily, responsible for the decadence of Latin studies in this country, and that the battle is surely lost forever if they do not mend their ways. What shall we say in our defense?

In any discussion of the situation before us, one fundamental fact must be premised and thoroly understood. College instructors do not understand the problems of the secondary school, and with the rarest exceptions are not competent to direct preparatory work or to give good advice about it. This proposition will, no doubt, be disputed, first of all by the college man himself, but every thoughtful schoolmaster will recognize its truth. Whenever we call in a college man to address a meeting of schoolmasters we find at the end of a few sentences that we have a theorist before us with little or no practical grasp of his problem. Strange as it may seem, those who have had a season of preparatory teaching before being called to the college are soon no better than the others. It is nothing less than astonishing to see how rapidly the point of view changes in such cases. In a year or two, even in a few months, your newfledged college teacher has forgotten the school and all that went with it. This inability to understand the problems of secondary work is shown beyond all doubt by the character of the elementary textbooks prepared by college instructors, a matter which I hope to discuss in a later paper.

All of us who have had an opportunity to observe the

German *Gymnasiallehrer,* for example, will admit without cavil that we are not so well prepared as our European confrères. This applies to those of us who have had a graduate year or two, and even to many who have reached the Ph.D. On the other hand it must be conceded that our preparatory course is by no means so exacting as the European, either extensively or inextensively. We are not allowed so much time, we do not cover so much ground, and our system of education sets very different standards. These standards, by the way, are set for the schools by the colleges themselves.

Does it occur to these gentlemen of the colleges that their charge on this point is capable of developing into a very disagreeable boomerang? If we schoolmasters are inferior in scholarship to the Europeans, what of our college instructors? Can we not cry "*tu quoque*"? I well remember hearing a German professor begin the seminary work of the semester with a Latin discourse lasting one hour and a half on the origin, date, authorship, and meter of the Greek poem under discussion. This talk was delivered without notes and at a very high rate of speed, without a pause or a hitch of any kind, and was occasionally interrupted with a request to some of the students to get a necessary book, or the like, all in Latin. The subject of the investigation was Greek, tho the professor was one who lectured on Latin only. How many of our college men can duplicate that performance? How many of our Greek professors can write a Latin style equal to that of the late Professor Blass, for example?

And if we schoolmasters sometimes fail to radiate inspiration, is it always entirely our fault? Is it not a bare possibility that a few of us have been deadened rather than refreshed during our college courses? My own personal impression, corroborated by the testimony of many other secondary teachers, is that there is very little good cultural teaching in the colleges—teaching, I mean, of a kind which prompts men who are not specializing to choose Latin courses because they find in them uplift and inspiration and delight. If the college men with their wide range of authors to choose

from can not not get and hold their men and inspire them with a fondness for the classics, is it reasonable in them to lay the blame for it at our doors? And if we in college had our ardor for the great poets, for instance, smothered by dry-as-dust methods and by syntactical dissections of winged gold and silver song, is it strange that we have trouble sometimes in interesting our little fellows in the seventy-fifth charge of the Romans against the barbarians or any other choice bit of the battle, murder, and sudden death in ancient Gaul? If we are not always inspiring teachers, is no part of the blame due to those who taught us in college? All of us, of course, have much that we cherish in the memories of those days, but, oh, the rest of it!

But there is, as it seems to some of us, a far more serious side to all this. The preparatory course, as our system is now arranged, is dictated absolutely by the college entrance requirements, and these requirements at present are so mischievous in two ways that they spell ruin unless we can hope for early relief. It is useless and hopeless to demand good secondary teaching as long as we are bound by a rigid system which first kills interest, and secondly puts a premium on "cramming" processes and interlinear translations. Nor can we get far while we are compelled by small differences and irregularities to waste a large proportion of our strength and time, as is now the case. The present state of affairs is this. A school which prepares boys for Yale, Harvard, and Princeton is forced by economic reasons to prepare them together just as far as the respective requirements will allow. Large and rich schools may be able to separate them early, but small schools can not afford to hire teachers enough to do so. Further, the exigencies of the class and recitation schedule necessitate keeping them together as much as is anyway possible. Moreover, boys as a rule do not know until they are well along what college they will attend. As a result any freedom that might be allowed by one college is nullified by these economic necessities. Boys who are going to Harvard, for example, must pursue the same course as their Yale brethren until they

are near the end. The Harvard scheme which allows a larger elasticity in the secondary work is thereby defeated.

Unfortunately, however, tho the course must for these reasons be practically identical for all, there are divergences which are the despair of the schoolmaster, and, from every point of view, disgraceful to the colleges. All must read four books of Cæsar, Yale and Princeton demand six orations of Cicero, Harvard adds a seventh, and that *must* be the *Marcellus*. Yale must have the Eclogues, Princeton will not be satisfied without Sallust's *Catiline,* Harvard and Dartmouth require more preparation in sight reading, Yale candidates must have some practise in reading Nepos, and so on. Moreover one requires Cicero for its grammar and composition tests and makes it preliminary, while another sets Cicero in the finals. Preparatory school men know only too well that the burdens imposed by these differences are well-nigh intolerable. Many smaller schools can not bear them at all and are obliged to refuse their pupils preparation in one or more of the odds and ends. In larger schools the work is offered, but it entails a scattering of energy which can only be termed abominable. That college men, who claim to have the interests of Latin scholarship in America at heart, should inflict such hardships on the schools passes understanding. We can only repeat soberly and earnestly that it is a disgrace to the colleges.

If there were any sincerity behind all these impossible conditions, we could put up with them, perhaps, for the good of the cause. Unfortunately we know from the results of the entrance examinations, that the differences are nominal and not real. All these colleges want the same thing of our boys, and they want it in approximately the same quantity. Cockiness or pretense of superiority on the part of any one of the colleges is not justified by the actual results of the examinations. No one of them has a standard which is perceptibly higher than that of the others, as every secondary teacher knows from experience. Poor scholars get into them all, and there are well-known coaching schools which can put a boy into any one almost at will. They are all anxious to

get boys, and in large numbers, and somehow and sometime they let them in. The divergences in requirements which cause such unbearable hardship represent nothing real. All want a certain knowledge of the syntax, a fair vocabulary, some actual power in handling the language, a very little miscellaneous information—in short, a foundation fit to build on. That being so, why not be fair and honest about it and agree upon absolutely uniform entrance requirements? The schools would be relieved of a weight which is too heavy for some and most burdensome for all. We should all be immensely cheered, and the cause of Latin scholarship would be materially advanced. That this has not yet been done is one more proof that the college men have no idea of the problems that confront us in the school, and for the same reason it probably never will be done until we make it perfectly clear that we can not and will not endure it much longer. We too can be driven to a declaration of independence.

We have said that the present rigid preparatory course kills interest and puts a premium upon cramming processes. This is the most serious aspect of the whole situation. The fact is, all college opinion to the contrary notwithstanding, that a strict diet of Cæsar, Cicero, and Vergil is nauseating to the small boy. Those of us who are of riper years and wider experience can appreciate the political dexterity of the *Commentaries*. We can read them rapidly enough to get the sweep of the narrative and the simple power of the style. We can grasp something of the historical import of these conquests—but, it is a far different affair for the boy, conning it over in small daily bits largely as an exercise in language, for that is what it must be at that stage. A book of it is interesting enough, two are too much altogether, three an insufferable bore. That any boy should be compelled to gulp down four is enough to justify him in hating his Latin for the rest of his life. Nor is the case different with Cicero. To us moderns his oratory is turgid and bombastic. We soon get tired of it under the best conditions, much more the boy. Two orations at once may hold his interest, more is a surfeit. For Vergil rather more

may be said, but the fact remains that six books make far too large a dose. The average pupil finds Æneas with his continual piety and weeping too tiresome for words long before the end of the sixth is in sight. Would not the story of the fall of Troy be enough? Vergil is difficult Latin even for a mature mind, and very much that delights us elders is spoiled for the boy by the mere drudgery involved in getting at the meaning. The delicacies of the shading, the grace and power of the imagery, the pathos and the nobility are largely lost on us; why should we pretend that they ought to hold the interest of a growing lad of sixteen or seventeen thruout a whole long weary year? The story itself, which after all is the chief hold with the young, flags in the long run, vivid and dramatic tho it be in some places. We all know the difficulties connected with maintaining the pitch in epic poetry. In a word, then, our preparatory course is uninteresting because the work is monotonous. It lacks the first essential of interest, variety. This monotony is forced upon us by the college requirements. We are bound hand and foot and are obliged to hear the reproaches of our mentors for permitting conditions which they themselves inflict upon us. It is indeed easy for Professor Mentor to sit in his cushioned chair and complain that we fail to interest our boys in Latin, but we are wishing that he would try to do it himself under the conditions which he lays down for us. We are serenely conscious that he could not do it. We know further that he very generally fails to compass it even in the college under conditions of his own choosing. We may ask him with perfect justice how long his appetite would last, if his daily diet were limited to four or five dishes only. We may ask him if he ever heard of a modern language teacher who restricted his secondary work to the reading of parts of two or three long classic works, one per year. Teachers of French, for instance, call in interests and variety to help them win and hold their pupils—we are debarred from following their good example. Yes, indeed, we are willing to admit that the preparatory work is not interesting, but—it is not our fault.

Furthermore this monotonous routine of three authors, one per year, is not approved by the experience of the best practical pedagogues, I mean those of Germany and England. Somehow or other, in ways which we partly understand, but can not at present adopt in their entirety, the Englishmen and Germans (and the French too, for that matter) get results far superior to ours. Their experience dates back decades to our years, and whether we confess it or not, they have found out a few things about the child mind, of which our American cocksureness is delightfully unaware. We are a free and independent people and, of course, we may do exactly as we please, or as our colleges will let us, but any one of those master pedagogues abroad would laugh at the notion of compelling an innocent lad to read one author pure and undiluted for one whole year without relief. With them Cæsar and Ovid, Cicero and Ovid, Vergil and Livy, Cicero and Horace, appear in alternation, giving the needful stimulus of variety and interest. Why not be frank about it? Our present secondary course is dead, and ought to be buried without delay.

What, then, of remedy? It is perfectly clear to every one who is familiar with the situation that we must have relief and that soon, unless we are to give up the ship. We must somehow or other induce or compel the colleges to give us two things: first, perfectly definite and absolutely uniform entrance requirements, directed to testing knowledge of the language as a whole rather than of any specific works or authors; and, secondly, the consequent freedom, elasticity, and variety so sadly needed to lend interest to our secondary course. Tests of a minute and searching character upon small set portions of one or two authors might well be added, for within reasonable limits such examinations may be regarded as tests of one sort of power over the tongue. We now have Lodge's admirable word list to set us a standard of the vocabulary which may properly be required in sight translations. Let it be understood that words not numbered in his list are to be given to the candidate unless they are obvious derivations of familiar words. Let the sight pieces

be chosen with discretion, not, as now sometimes seems to be the case, for the purpose of holding up ideals or to give an impression of rigorous severity, but with a view to the practical ends of the occasion, pieces fit to test, not to terrify the candidate, nor to impress the public.

It has been suggested to me that we might do well to take a hint from the entrance regulations in force at Oxford and Cambridge, England. As a result of long experience, the English give practical recognition to a fact which our system ignores, namely, that there are two classes of men to be dealt with in education; first, the scholars, those who, for one reason or another, will work hard and strive for sound learning and high rank; secondly, the men who attend the university merely for the sake of the social opportunities and advantages, or to lay a foundation of general culture as a desirable preliminary to specialized technical studies. The English separate the two classes and give them different treatment. As regards the entrance examinations, the authorities seem to reason in some such way as this: "We need not worry at all about the honor men—they will look out for themselves. We do not want to know whether a man knows too much, but we wish to keep out those who know too little. Let us therefore set a test which will let in all who will make respectable pass men, and will exclude all others." The result is a simple examination, so easy that a fair student can pass it in many cases two full years before he leaves the school, so very simple, in a word, that, at the end of the school course all can pass it whom the university is willing to receive at all, all who are regarded as proper subjects for university training, and no others—and when we say "pass it," we mean *really solve* it and get the right answer, as one might be expected to do in case of a mathematical problem. How simple and straightforward and, above all, how practical all this is beside the perplexities of our own system! We all know the difficulties which beset the reader of entrance papers. It is easy to sort out the excellent work and to reject another percentage as obviously unfit, but when it comes to sifting the remainder, there's the rub! It requires

almost superhuman clairvoyance to decide with justice the the fate of the boy who, in his mad, anxious struggle with one of our unreasonable sight papers, gets no sense at all out of one-third and nonsense out of another with possibly some faint glimmerings about the rest. College readers reject some such papers and accept others, on what principle we have not yet been able to determine—the process seems quite impartial. If the passage were simple enough so that the boy ought to read it with understanding and translate it with substantial accuracy, and get four-fifths of it right, or else stay in outer darkness until he can learn to do all of that, the matter would be simple enough for all parties concerned, college, preparatory teacher, and the candidate himself. We should all know what we are doing, to the great general comfort. As a matter of fact any one of the last half dozen pages of *Fabulae faciles* would make a good test of a boy's ability to do college Latin. A candidate who could read it with substantial accuracy at sight, and give some explanation of modes and cases would make good college material. His comrade who could not would need longer preparation. It is in some such sense as this that I am about to use the words "moderate difficulty." The requirements might perhaps be formulated as follows:

I. A sight translation of a piece of Latin prose of moderate difficulty, with questions on the syntax, especially of the usual modes and cases, and on the ordinary forms.

II. A sight translation of a piece of Latin poetry of moderate difficulty, with questions on poetic constructions and usages, figures of speech, and the like.

III. The translation into Latin of a piece of English narrative or of detached sentences or both—not based upon any specific Latin author, and easy enough to be fairly within the powers of a student who has finished Ritchie's *Exercises in Latin prose composition,* or a book of that grade. The vocabulary is to be limited to the numbered words in Lodge's list.

IV. A more minute examination upon Cicero's *Archias and Manilian law,* or the *Archias* and *I-II against Catiline*

(papers being set on both), with questions of moderate difficulty directed to testing knowledge of the subject-matter, historical references, course of the argument, history of the author, and the like.

V. A similar minute examination upon Vergil's *Æneid,* books II-III, or Ovid's *Metamorphoses,* 1500 lines, myths to be specified (papers to be set on both), with questions similar to those on Cicero, with the addition of scansion.

N.B. Credit will not be given for IV or V unless either I, II, or III is past at the same time or at a previous examination.

Some such solution as this, it seems to me, is our only hope if Latin is to stem the tide. Experience shows us that we can not hope for any spontaneous relief from the college men. They are honest and well-meaning, no doubt, but their attitude is, as it has been, characteristically uncomprehending and selfish, not to say arrogant. For decades they have been sitting "on the hills like gods together, careless of mankind," and there is very little hope that they will come over and help us unless we bestir ourselves unceasingly. In season and out of season, at every gathering of schoolmasters, in the periodicals, in public and in private, it behooves us to agitate and to keep alive the issue of uniform entrance examinations and freedom of curriculum for the schools. If we let the fire die, we may be sure that the college men will not fan it. Nor must we let ourselves be influenced by any protests from those secondary teachers who are mere "crammers," or who prepare boys for one college only, and are satisfied with the present system because it is easily adaptable to their ends and methods. The fight is for those who really value Latin studies for their own sake and are not ready to see them thrown overboard after the Greek. *Amicus certus in re incerta cernitur.*

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II

RETARDATION: ITS SIGNIFICANCE AND ITS MEASUREMENT

It is a significant thing that with all our pride in our public school system, with all our profest regard for this bulwark of our democracy, the American public should listen with such rapt attention to the voice of the destructive critic. A few well chosen phrases, such as "we are sacrificing the child to the system," will gain a respectful hearing for almost any kind of educational balderdash. Demonstration is not asked. Emphasis seems to be the only thing required to obtain prominent publicity in our newspaper press, and not infrequently the fervid plaudits of educational gatherings.

If the lay critic can thus evoke admiration, if not stimulate thought, how much greater attention should we give to the constructive criticism which comes from men engaged in school work and acquainted at first hand with its problems? If the study of elimination and retardation in our public schools has led to some startling conclusions, it has happily been free from sensationalism. It has been prompted by no desire to exploit evils, but by a serious effort to show some distasteful facts only in the hope that we may thereby discover something of their causes and so seek a remedy.

To some these problems which appear to involve the whole question of the efficiency of our public school systems, constitute the most important phase of present day educational discussion. Yet to the casual observer this discussion might readily appear as a curious compound of frantic assertion and calm indifference. On the one hand, it is said that few of our pupils reach the conclusion of the elementary school course, that in all stages of the school plan there is a large proportion of backward or retarded children who can never hope to finish even their elementary studies, and that in con-

sequence our schools are pouring out every year a horde of youngsters very ill prepared for the duties of life. When such statements receive any attention whatever—and too often they are received with an impressive silence—we are informed either that all this is nothing new or that its significance has been exaggerated.

What are the facts in the case? Simply that in all public school systems which have been thus far examined there is observed in every grade of a school system a considerable proportion of pupils who are too old for the grades in which they are found. A single case will exemplify the point, and I choose for this purpose some hitherto unpublished figures which have been courteously supplied me by the Superintendent of Schools of Springfield, Ohio.

SPRINGFIELD, OHIO, JUNE, 1908
AGES AND GRADES OF PUPILS IN PUBLIC SCHOOLS

GRADES

Ages Years	1	2	3	4	5	6	7	8	Total
6	482	10	0	0	0	0	0	0	492
7	319	231	32	0	0	0	0	0	582
8	114	314	250	36	0	0	0	0	714
9	34	154	243	184	15	0	0	0	630
10	10	84	187	257	124	25	3	0	690
11	2	33	91	172	236	121	26	2	683
12	0	11	43	121	170	208	101	12	666
13	1	7	21	49	105	154	159	121	617
14	1	2	7	22	58	127	136	154	507
15	0	1	1	7	27	49	69	103	257
16	0	0	2	1	8	11	16	34	72
17	0	0	1	0	0	0	2	6	9
Totals	963	847	878	849	743	695	512	432	5919
Above normal age	162	292	353	372	368	341	223	143	2254
% " " "	16.8	34.4	40 2	43.8	49.5	49.0	43.5	33.1	38.0

In this table a heavy line separates those who are of normal age and under from those of above normal age, the conventional standard used being to consider in the first grade all children of eight years and over as above normal age, and so on progressively in the several grades.

The table exhibits the cumulative effect of failure. While

in the first grade only sixteen and eight-tenths per cent. of the pupils are above normal age, this rises to forty-nine and five-tenths per cent. in the fifth grade. Or looking at the matter in another way, we may note that while eight-year-old children should normally be in the second grade, sixteen per cent. of them are below that grade, but that of the thirteen-year-old children who should normally be in the seventh grade, as many as fifty-four and six-tenths per cent. are below that grade. Similar figures have been gathered quite recently in a considerable number of places. Whenever they have been brought together, and whatever the basis of the enumeration (total enrollment, enrollment on a given day, etc.) they always show a considerable percentage of retarded, backward, or over-age pupils, which rarely falls below twenty per cent. of all the pupils and sometimes rises as high as sixty per cent.

But we are told that this is no new problem, that schoolmen have long been aware of this state of affairs. That the problem is not new may be readily conceded, but this does not make it any the less real. It may be an old truth which we are now really seeing for the first time because we have found in such tables as I have quoted a more vivid and forceful statement than we ever had before. If, moreover, school men have long been cognizant of this state of affairs, it must be confest that they have been strangely reticent both as regards its extent and its causes.

Far more important is the suggestion that erroneous methods have been employed to determine the amount of retardation, that certain pupils are termed retarded, who should not be so designated. There is a clear implication that such inclusion has resulted in an exaggerated and distorted view of the case. Such an implication warrants serious consideration. We should rejoice should it prove that the evil which we have descried, does not in fact exist, but is merely a defect of our means of vision.

With such a possibility before us we may well review fundamental concepts, and ask the question "What is retardation?"

Technical terms are not always self-explanatory. They

acquire conventional meanings which modify their obvious significance. To express a certain result which we find in our schools we have borrowed the term "retardation" from one —the most important—of the processes by which that result is reached. So far as there is a difference of opinion among those who have thought and written on this subject, it arises from the fact that one emphasizes the result, and the other the process. The result referred to, however caused, is a disparity between the ages of pupils in the schools and the grades in which they are found. The process referred to is the failure of pupils to secure promotion and thus a slow rate of progress.

Commenting on some very excellent work of Dr. Cornman of Philadelphia, Superintendent Greenwood of Kansas City voices his dissent as follows: "The only correct way to estimate retardation or the slow movement of a pupil, is the length of time it takes him to do a year's work. It is not a question of age without respect to progress, but it is one of time required to do a given amount of work within a specified time without regard to age. Suppose two boys enter college, one sixteen years old and the other nineteen, and each one completes the four years' work on time. How would any one claim that the older one was retarded? So, if a child begins the regular grade work at eight and he does a full year's work each year till he completes the elementary course, that child is not retarded, and it would be puerile to class him as a backward pupil. The only clear cases of retardation are those in which pupils are kept longer on a certain unit of work than is prescribed in the course of study. Many intelligent, sensible parents, especially in the middle and western sections of the United States, prefer not to send their children to any kind of school until the age of eight, and where such children do enter school they go forward rapidly and easily in their studies, often skipping classes."

Dr. Cornman with many others has used the criterion of age. Mr. Greenwood would have us use the rate of progress only. Are there then defects in the age standard which disqualify it, and excellences in the progress standard which

make it alone applicable? If so, much of our recent discussion of this subject has been wandering in false paths, and it is high time to retrace our steps. But whether this be true or not can not be decided by an appeal to the primary meaning of the word retardation, but must take into account the conventional meaning which it has acquired.

The phenomenon of retardation however measured has been recognized as fundamentally important from two standpoints, that of the school and that of the child.

From the standpoint of the school the significance lies in what Mr. Greenwood has aptly termed the "spread of the ages." The "spread" is altogether too broad for efficient teaching. The classes are too heterogeneous. Age differences beget subtle differences in habits and modes of thought which impair the unity of teaching, and burden the teacher. Their ten-year-old child is out of place in the first grade, and because he is out of place he is a nuisance. He requires a different discipline, a different mode of teaching. Nor is it very material from this view-point how the older child came to be among the younger pupils, whether it was by a failure to be promoted, or because he was kept out of school by unwisely indulgent parents.

From the standpoint of the child the essential thing is his prospect of securing an education. Since so many children leave our schools at the ages of fourteen and fifteen years, the question how much education a pupil is likely to get resolves itself for the great majority into a question of how much they can get before reaching that age. If the law were the only force which brought children to school the amount each would receive would be measured by the number of years between the age seven or eight, as the case may be, and fourteen. But as children may go to school at the age of six, and in New England frequently enter the first grade at five, it is clear that such children have brighter prospects for an education, than those who wait till they are eight years old before going to school. A six-year-old child in the first grade will in all probability get more out of school before leaving it than one who is nine years old. Does it matter from this

point of view how the child came to be there at the age of nine—whether he failed to advance, or whether he was nine years old when he first came to school?

Many prominent educators would have us believe that it matters little when a child begins school. Some go so far as to say that even if there is an initial disadvantage for the child who enters late, he readily overcomes it and by rapid progress reaches his proper place in the school system. Mr. Greenwood has already been quoted to this effect. Elsewhere he has said: "There is not today an elementary course of study in the United States, but that a boy or girl nine or ten years of age, if turned loose on it and permitted to go ahead would not complete it in three or four years." The general principle may or may not be true, but the fact is that a child who enters our graded system of schools is not turned loose upon a course of study, nor is he generally permitted to go ahead.

If the children who entered late in our schools caught up as Mr. Greenwood supposes, his objection to the age standard of retardation would, at least so far as the upper grades are concerned, fall to the ground. By his supposition three or four years in school would overcome any initial disadvantage, and the child who entered late would be as far advanced for his age as he who entered early.

But unfortunately there is little evidence that many children "skip" grades. If there is any such rapid movement of some of the pupils, the published reports of our schools do not reveal its existence. Rapid progress thru the schools is represented by promotions over more than a grade, and by promotions during the year. These constituted in Somerville, Mass., in 1907 exactly one and four-tenths per cent. of all promotions. Again in Springfield, Ohio, where we have a record of 4755 promotions, there were only seven pupils who were promoted more than one grade. In Philadelphia among 122,644 promotions, 2406 are described as incidental. In the investigation conducted by the Russell Sage Foundation in New York City, Mr. Ayres found complete records for 946 pupils in the fifth grade. Of these only

fifty-one or a fraction over five per cent. had progrest more rapidly than the course of study contemplated.

But tho double promotions are only sparingly reported, we find a number of instances in which pupils are reported as finishing the course in less than the specified time. In Cambridge, Mass., in 1907 of all pupils who finished the primary course of three years four per cent. came thru in less than three years. In Somerville, Mass., in 1907 fourteen per cent. of all pupils finishing the elementary course did so in less than the allotted time of nine years. In Boston in 1895 twenty per cent. of those who finished the grammar course of six years did so in less than normal time. In 1908 in Kansas City about nine per cent. of those completing the elementary schools did so in less than the prescribed seven years.

Concerning these figures it may be said in the first place, that assuming their correctness, they embrace only a portion of the pupils who enter school. If these graduating classes represent as many as half the pupils who enter, it is safe to say that they include practically all the pupils who made rapid progress. As these are the specially gifted ones, who are likely to continue their education, it is not probable that any of them are numbered among those who have left school. In comparison with all the pupils, therefore, the proportion of those who advance rapidly is materially diminished.

But can we accept these figures at their face value? Do they not in all probability include some who as young children went to other schools, which they have failed to count? Not infrequently children are sent to private school for a year or more before they go to the public school. Cases also occur which can not be neglected in this consideration of the specially gifted, of children receiving home instruction, and entering school above the first grade.

It must, I believe, be granted that the child who starts late is at a disadvantage in our public school system, and that this disadvantage is rather permanent than temporary. Shall we, therefore, call him retarded? We have already seen that he produces in the school the same situation as he who fails to be promoted. His progress may be at the normal

rate. But progress means more than rapidity of movement. It means in many cases the ground which has been covered. Compared with his opportunities such a child has progrest little. He made a late start and is already behind his fellows in the race. Is it any twisting of words or violence of language to call him retarded?

But what of the implication that the age standard exaggerates conditions? If there were a reasonable doubt as to its propriety the question would mean how large a part of age retardation is ascribable to late entrance into school. Obviously this factor can not grow. It is fixt from the start and is found as an original proposition only in the first grade. Let us take an illustration from Kansas City. In the first grade there were in 1906-07 by the age standard twenty-five and two-tenths per cent. of the pupils retarded. There were also in the first grade 1232 pupils who had been there more than 200 days. If this is properly comparable with the total enrolment, it amounts to fifteen and nine-tenths per cent. who were retarded by lack of progress. Hence, in a total retardation of forty-eight and five-tenths per cent. in Kansas City schools by the age standard there is thirty-nine and two-tenths per cent. caused by failure, and nine and three-tenths per cent. by late entrance.

In New York City Mr. Ayres found that among 100 retarded children by the age standard such retardation was due to a late start in only about thirty cases. If there were any reason for eliminating late start as a cause of retardation, it would leave us with a volume of retardation about one-third less than is currently reported.

But suppose we apply the progress standard pure and simple. It is difficult of application because records of the number of years pupils have been in school are not frequent. In the hundred largest cities in the United States there are only five in whose reports I find the slightest information on the subject. In Cambridge we learn that thirty-five per cent. of the pupils fail to complete the primary grades in three years, the allotted time. There are no age figures for Cambridge, but in neighboring cities with similar conditions we

find the following percentages of retardation by the age standard in the fourth grade: Springfield, twenty-eight and nine-tenths; Boston, twenty-seven and six-tenths; Medford, seven and seven-tenths.

In Boston in 1897 there were forty-six per cent. of the pupils who took more than the regular time to finish the primary schools, while the age retardation in the fourth grade was only twenty-nine and three-tenths per cent. In the same city in 1894 thirty-four and five-tenths per cent. of the pupils took more than the regular time to finish the grammar grades, while the age retardation for the ninth grade in 1896 was twenty per cent.

Again in Somerville in 1907 in the graduating class thirty-six per cent. took more than nine years to complete the course. No age retardation figures are available, but it is doubtful whether they would differ greatly from those of Boston, where the age retardation in the ninth grade was sixteen and three-tenths per cent. in the same year.

Among 1517 pupils finishing the Kansas City schools in 1908 there were 719, or forty-seven and four-tenths per cent., who required more than the allotted seven years to finish the course, while the age retardation at the close of the seventh grade was fifty-one and two-tenths per cent. Here is a very slight difference in favor of the progress standard.

Figures are available in some places, e.g., Kansas City and Baltimore, showing number of children who have been more than a year in their present grade. If, as seems proper, these be added together for the first four years, to ascertain accumulated retardation at that time, the resulting figure gives a comparison not unfavorable to the age standard.

We therefore see that wherever there is an opportunity to test the relative results of the two methods the progress standard, with a single exception, gives higher percentages of retardation than does the age standard. This should absolve the advocates of the latter from the charge of exaggeration.

Moreover, those who have employed the age standard have been generous in its application. Very seldom has it been so rigorously applied as in Medford, Mass. In that city many

children enter the first grade at five years of age, and hence the superintendent takes five years as the normal age for the first grade. Calculating all above five years of age in the first grade as above normal age, and using corresponding figures in the upper grades, he discovers that out of 4036 school children, 3423, or eighty-four and eight-tenths, are retarded. But this is a strained and unusual application of the age standard. Generally any child under eight years of age in the first grade is considered of normal age, and those of eight years and upwards are considered as above normal age. For those who enter the first grade early, say at six, this allows for one failure, or by half-grades for two, before the child begins to be counted as retarded. On the other hand any pure progress standard makes no such allowance. Hence the percentage of retardation as measured by the age standard as commonly applied instead of being greater is apt to be less than when the progress standard is used.

Moreover, it is clear that the age standard is of easier application. It can be applied at any time. Perfect accuracy in the progress standard assumes perfect records of past school history. If these do not exist, but must first be established, we must wait eight or nine years before we can secure trustworthy results. This is a practical consideration which speaks loudly in favor of the age standard.

To sum up: the amount of retardation has not been overstated in current discussion. It is prevalent everywhere. Because of the impediments which it offers to the forcefulness and effectiveness of teaching, it is one of the most serious questions of school management. Because it is depriving our children of a part of the education which the state provides for them, it is most serious for the prospects of our future citizens. It is an old evil, newly stated. Every effort made to diminish it will redound to the benefit both of the schools and the children. Concerning its causes we are yet much in the dark, but who can doubt that out of the continued study of this greatest of problems of our school administration, will arise practical measures which will not abolish the evil, but will greatly lessen it?

WASHINGTON, D. C. ROLAND P. FALKNER

III

THE MISSION OF MUSIC IN COLLEGES [1]

The educational system of any period may be considered either as a cause or as an effect—that is, either as an agency modifying prevailing ideals, or as a resultant of ideals already in existence. Ordinarily, we view education in the first aspect, as a factor determining the life of the present and of the future. At times, however, we are led to view it in its complementary aspect, as being itself determined by the environment amid which it flourishes, in accordance with a principle analogous to that by virtue of which water may not rise above its source. Thus, the whole past, in education, acts as a check on the present and on the future. Altho, occasionally, this restraint impedes true progress, it makes, predominantly, for conservatism and for sanity, and is, in every way, salutary.

The course of American education has thus been determined, in part, by the character, thought, and activities of a race given over to the development of a virgin country and the formation of a new civilization. From time to time, as general progress has been made, educational ideals have been compelled to undergo successive adjustments. The restlessness of a people whose highest ideal has sometimes appeared to be the discovery and exploitation of unmeasured natural resources, has of necessity made an indelible imprint on our systems of education. These systems have, consequently, been kaleidoscopic in their changes—the same elements, in general, being present, from time to time; but in varying proportions and relationships. Collegiate emphasis, for instance, has been placed, at different periods, on theology, on "the humanities," on the exact sciences, on industrial pursuits; and is now begin-

[1] Paper read before the Music Teachers National Association, Washington, D. C., December 31, 1908.

ning to be placed, we believe, on esthetic and cultural studies, whose function is the enrichment of life. We can hope for comparative permanency in our educational systems only in proportion as our national character acquires repose.

And this is all as it should be. What higher ideal can we set before our educators, than to study the varying needs of a people in course of development, and to endeavor to satisfy them? It is as desirable as it is inevitable, that our systems of education should be plastic, ever re-adjusting themselves with changing conditions—ever forming, but never formed. Implasticity, whether in an individual, in a species, or in a system, is equally incompatible with progress. The early forms in any evolutionary process are, at the same time, the most impressionable.

If our educational systems at large can thus be described as, in a sense, formative, with what word shall we characterize the present status of the study of music—a study so recently developed, in America, that it is, as yet, only in process of articulation with the prevailing forms of educational thought? A recent bulletin of the United States Bureau of Education contains the following statements: "There is no coherence in the general scheme of music education. . . . To define the status of music education in the United States has been practically impossible."

Fortunately, this lack of coherence in music education is no cause for despair, in view of the fervent activity displayed in behalf of the new subject. Approximately one-half of the colleges in the United States, for example, already recognize the value of instruction in music sufficiently to grant credit for it toward the academic degree—the majority of them having adopted this policy within the present decade. In addition, approximately one-sixth of our colleges already allow entrance credit in music, in the academic course—the majority of them having adopted this policy only within the past five years. Many colleges, also, offer instruction in music, tho withholding credit of all kinds. Collegiate activity in music has, in fact, been so widespread, and so effective, that, despite its recent growth, the study has already past thru its

initial stages of development: at first, chief emphasis was placed on the performance of music; then, on the composition of music; and now, on the treatment of music educationally, and as an element of liberal culture. Thus, under the stimulus of a growing ideal, music education has begun to adjust itself to its environment; it has displayed a plasticity that bears eloquent witness to its inherent powers of growth and adaptation.

We come to realize, therefore, that into our still formative American systems of education, ever re-adjusting themselves to the changing needs of a nation at work on a destiny, a new and promising element has entered—a subject of study that, even in its early and ill-formed period, has exhibited so marked a power of adaptation to the needs of its environment, that we are warranted in claiming for it an important function in our educational future.

What, then (to confine ourselves to a restricted field), is the mission of music in American colleges? What are the needs to which it is designed to minister? Our reply must concern itself with the needs of the nation at large, with those of collegiate systems of education, and with those that relate to the future of the art of music itself.

The needs of the nation, to which collegiate instruction in music must respond, are those of the higher life. The period of material development has practically reached its culmination, so that we are now becoming more concerned with the conservation, than with the exploitation, of our natural resources. A new period should be at hand—a period characterized by the increasing refinement of our civilization, by a widespread growth in cultural and esthetic aspects. Mr. Samuel Isham, a specialist in the field of American painting, speaks of "the taking of a whole nation whose ideals had hitherto been purely material, intellectual, or moral, and endowing it with some perception of the beauties of art." It is such a process as this that music is called upon to facilitate. Sordid and mundane influences, commercializing tendencies—these are to be overcome by opposing to them the softening ministries of the esthetic pursuits. "You will find it less easy

to uproot faults," says Ruskin, "than to choke them by gaining virtues."

The needs of collegiate systems of education to which the study of music may be applied, are largely those of incompleteness. President Butler has outlined these five aspects of civilization: the scientific, the literary, the institutional, the esthetic, and the religious. While there is still a question as to the wisdom of including religious teaching in our college curriculums, there can be no question as to the advisability of having instruction along scientific, literary, institutional, and esthetic lines. The last of these, however, is, unfortunately, either unrepresented, or inadequately represented, in most of our colleges—and it is this deficiency that the study of music is called upon to assist in meeting. This call is becoming the more insistent, in proportion as the educational value of music is being more widely recognized. For educators are now beginning to realize that the study of an art may contribute as much, even to the general discipline of the mind, as the study of an exact science. The study of music, in its various phases, for example, may lead, not only to the acquisition of better control over the hand, the eye, the ear, the muscular and the nervous systems, but also to the development of intellectual, emotional, volitional, and imaginative powers of a high order.

The salient need of the art of music, which collegiate instruction is seeking to remedy, is the lack of general musical culture in the nation at large—a lack so serious as to imperil our musical future. The development of the art of music in America demands that the colleges provide suitable training, at least in the earlier stages, for the professional student of music, in order that he may not be denied a liberal education during the period of preparation for his profession; but it demands, *a fortiori,* that the colleges assist in spreading such an intelligent appreciation of the master-works of music as to endow the nation at large with a true musical culture—for only thus can the fertile soil be supplied, in which alone the art can thrive.

A careful study of these national, educational, and artistic

needs will clearly reveal the fact that, if our collegiate instruction in music is to be adjusted to the demands placed upon it, it must be essentially cultural in nature, and designed for the student body at large—rather than technical in nature, and designed only for the elect few. Courses in musical appreciation (this term being employed in its broadest signification) are to be the predominant feature; and the atmosphere is to be jealously guarded, in order that it may always remain esthetic, rather than scientific. Such courses of instruction may, with wisdom, be incorporated in a group of esthetic subjects from which every college student shall be required to elect—a policy which, we venture to predict, will characterize the American college of the future.

A question naturally arises regarding the qualifications of the instructor under whose direction such collegiate study of music is to be placed, in any given institution. Just as our educational formulas are determined, in general, by the needs which they are designed to satisfy, so the predominant character of the instruction to be offered and the educational environment to which it must be adapted, indicate that the directing officer in a collegiate department of music should be, in the broad sense of the word, an educator—provided, of course, he be also a musician. If, besides, he is a composer, or even an expert performer, these additional gifts will be of the greatest value: but, preëminently, he must be equipped to penetrate and to solve the insistent problems of an educational nature that beset a subject of study still in its early formative period.

This conclusion, also, is the result of an evolutionary process. In the earlier stages of music instruction in colleges, when the principal emphasis was placed on performance, the collegiate professor of music was, characteristically, an expert performer; later, as emphasis came to be placed on musical composition, the professors chosen were, in most instances, either composers or experts in musical theory; now, when the educational aspects of instruction in music are emerging, the directors of our collegiate departments of music will, naturally, be men particularly qualified to give guidance to the new impulse.

Their problems will be mainly scholastic: the determination of the various courses of study to be offered, their aim and scope, their methods of presentation, and their relative importance; the correlation of music education with the general collegiate curriculum, with instruction in secondary schools, and with the thought and culture of the nation at large; the readjustment of these relationships, from time to time, as educational systems and popular culture progress; the dispelling of the skeptical attitude toward music education, that still lingers in our prevailing educational thought—a survival of the period in which collegiate musicians were unable to command the respect of their associates in other departments; the determination of standards of excellence, and of the principles that are to guide in the awarding of credit and of degrees; the fitting of the instruction to the conditions of undergraduate life and study.

Such problems as these are entirely beyond the ken of even the most talented performer or composer of music, unless he be, at the same time, experienced in the solution of educational questions and familiar with the collegiate field as a whole. It must again be emphasized, however, that the mere educator can not satisfy the demands of the position; the successful director must be, as well, a trained musician, esthetic in temperament, sensitive to the voice of art. With such a man, both educator and musician, music will be an art scientifically taught—not, as is too often the case, a science artfully taught.

In many of our institutions, however, it is necessary that one man direct both the collegiate instruction in music and a university school, in which selected students pursue special courses designed to fit them for a professional career in music. We are led to inquire, therefore, whether the qualifications of a university director of music are, also, primarily educational. The reply is in the affirmative. All the educational problems in the field of collegiate music have their counterparts in the field of university music; in addition, there are specific questions, such as the determination of the curriculum, and the requirements for higher degrees, which demand solution by a

director in sympathetic touch with educational thought. These questions are becoming the more insistent, in proportion as our universities are adopting a policy in accordance with which the professional student of music is obliged to meet requirements of a general academic nature, as well as those of an exclusively musical nature. It is, indeed, necessary, in a university, to have a prominent composer, as well as a prominent musical educator; but the latter should be the administrator and director—unless, perchance, that *rara avis* can be found, a man both composer and educator.

The man that can accomplish most for the future of American music is the one that combines university training, esthetic temperament, and educational as well as artistic inclination, if he occupy, as a forum, the chair of music in some prominent institution. Such a man will not only be a leader in developing music education, to the enrichment of our national life and the development of the art of music; he will also exert an influence on educational thought in general, so that music education shall bear its part in determining the ideals and methods of the future. The destiny of music education involves not only its adaptation to the general body of educational thought, but also a reactive process by virtue of which our educational systems shall themselves be transformed and vitalized.

This, then, is the mission of music in colleges and universities: to assist in the development of our future art, to stimulate and improve our national systems of education, to spread culture, to uplift our American civilization, to afford another fulcrum on which Archimedes may rest his lever and raise the world.

LEONARD B. MCWHOOD

COLUMBIA UNIVERSITY

IV

THE COLLEGE LIBRARY

The world's spiritual record and its physical record are not unlike in their manner of preservation and presentation. Scattered traces on the surface or near the surface of the earth stand representatively for constructive forms of action, which went forward for long periods over wide areas. These simple facts, still bearing testimony to framing power, become sources of inference under which a conjectural method is shaped covering the world's physical history. This process is sound in the measure in which the visible facts are wisely regarded and wisely united with each other.

In like manner the libraries of the world contain a variety of spiritual experiences, which, tho scattered much at random among men, still safely stand for processes of thought and feeling and action that have taken part in human life. The histories of mankind are not thus very different in their method of construction from the theories of geology. They are good or bad, adequate or inadequate, in the measure in which they give true interpretation and extension to the actual products of the human mind. It is these that are real and are waiting for a rendering which shall fill all gaps and give full significance to the several parts. A recognition of this principle, that we reach safely the invisible by an extended study of the visible, has led to a use of libraries distinct from that which at first prevailed. The reader, at the suggestion of another or from his own limited knowledge, called for a book and it was furnished him. The volumes with which it was associated remained hidden and their concurrent lessons were not learned nor their corrections received. The safety of the books was more thought of than the instruction of the student. More frequently at the present time he is left to find his way among the shelves, and the volumes that remain as well as

those which are taken win attention, impress themselves upon the mind, and fill it with a sense of the wide activity which, in one way or another, has found play among men in the direction his own thought is now pursuing. The library has thus come to be used and studied as one whole, and to stand to the student as a medium of reaching the men and the times that have gone before him. This method, even in its weak beginnings, is one of investigation, and comes at length to lay open human life. Thus the college library in the use of books has come to accept direct and extended contact as the chief service which it can render. The student no longer regards it as a cold, cheerless crypt from which a few bones are occasionally handed him, but as a well-furnished museum, as suggestive of living things as of dead ones, and where all experiences, reaching into his own life, stand in orderly relation to each other.

College libraries are midway between those large collections which nourish the labors of a few and those popular collections which provide more for pleasure than for toil. The college library is intended to meet the wants of those who are being awakened to the magnitude of the world, and are anxious to find their way among facts which are still a confused medley. Direct and extended contact with books is becoming the universal college method, and promises ultimately to wear away the indifference, distaste, and ignorance which lie in the path of the beginner. Those thefts and abuses which go with open-handed use are after all best overcome by the larger gratification and more general interest which accompany the present method.

There is, however, one custom, growing up with this extended use of books, which tends to put upon it a new limitation, and to arrest it in its own direction. The library is broken up and divided into seminars, more or less remote from it, according to the topics and departments embraced in different courses of study. Thus philosophy, civics, art, and the various branches of science have each their own center of study, while the general collection loses both value and interest. There is closer contact with sources of instruction, but at the same time a much restricted field.

This division of the main library has obvious advantages, but serious disadvantages. It gives apparent opportunities to the departments concerned, and a more cozy, comfortable, and companionable enjoyment of them. Those in charge of the instruction have the pleasure of magnifying it, and rendering its prosperity more visible. It multiplies divisions, excites emulation, and gains a show of independence. The students feel the force of this self-assertion and are drawn to the department and to the work assigned them.

On the other hand, it weakens the general library and leaves on its shelves the books least current and of least obvious utility. It becomes a storehouse of odds and ends of volumes apparently out of date, while the living books and living interests have gathered at a half-dozen new centers. It occasions uncertainty as to where a book is to be found, makes the pursuit of it annoying, and prevents easy reference. Not only are the books of special quality to be had only at a given seminar, those of varied and wide-reaching contents wander off subject to conflicting claims. These difficulties may be reduced by duplicating copies, but are not likely to be overcome. The cost of housing books, the cost of attendance, and the educational impression of a varied and large establishment all suffer somewhat by this dispersion of effort.

Yet these are not the reasons which should chiefly determine the policy of a college. There are deeper and more important considerations. The unity of college life, already too much broken up, is still farther sacrificed by this divided attention. The unity of college life finds both expression in and nourishment at the general library. On the whole, our American method is fortunate in having a college training of suitable length and distinction interposed between elementary and professional instruction. It is a concession definitely made to budding manhood, a recognition and assumption of its opportunities which mark it as a distinct transition, a possible era in the hastening changes which sweep us onward. College life does not allow itself to be overshadowed or reduced in value by what precedes it or follows it. It stands by itself as a period of awakened enthusiasm, of wide observation and

redundant life, in which new impulses may spring up and assert control. Such a period ought not, in the name of education, to be reduced or lightly treated. The mind of the young man, coming for the first time in wide contact with the world, and yet not jostled by it, should be left for a little to contemplate its magnitude, apprehend its variety, and shape itself to its labors. Let the boat hug the banks of the beautiful river on which it is launched, float slowly onward occupied with restricted interests, and only at intervals feel the force of the midstream currents, which will quickly enough draw it in and engage it with rocks and rapids which make all other objects nugatory. It may seem wisdom to hasten the conflict, but it is not the same wisdom as that which widens knowledge, sobers the mind, seasons the muscles, and leads one to pursue rational ends rationally.

These seminars are only another phase of that process by which college life is broken into shreds, beaten into felt, and used as a wrapping for a single pursuit. Colleges have improved in variety of studies, in thoroness of instruction and in a close hold, backward and forward, on the continuity of life. But this tendency can easily go too far, and has gone too far at more than one point. We owe much to contemplation, we owe much to manhood; we need to put forth our best and most habitual efforts in the direction of assured strength and integrity. I recall an excellent woman who wished an apple tree in front of a window at which she was often engaged. She also desired that it should not obscure the view. She steadily stript away, in its stages of growth, all laterals, hoping that it would adopt the habit of a palm with its foliage at the very top. It refused the suggestion, bent back to the ground with its terminal tuft, too limber even for a whip. We must do something for the bole of the tree, the trunk that is to sustain its branches, and spread them in the sunlight.

When I was in college, appliances were very limited, instruction poor and commonplace, but these distressing facts did not destroy the value of four years; they hardly reduced it. The unity was great; the action and reaction between

classes and classmates were constant, and we stimulated and trained each other in unguided ways and by unscheduled pursuits. We regret very much the going to pieces of college life by its departments, and divisions, and elections; each instructor occupied with his own pursuits. To these separations we must add many fraternities, ostensibly establishing new kinships, but certainly wasting old ones, and making of college life little more than the fragments of a broken feast.

But this consideration, important as we regard it, is secondary to another; this division tends toward narrow-mindedness, not toward large-mindedness. Influences which either restrict the attention or leave it to a natural bias are finding entrance into our instruction in so many ways that they should be challenged at every point. The world is very broad and very abundant in fitting objects of observation. Barren as we often make it, restricted as are the lessons we are willing to derive from it, it offers everywhere the material of inquiry and reflection, combines and interlaces its topics, and urges them, in whatever direction we turn, on our attention—layers of construction, upper and under, outer and inner. We are enveloped in our weak and flickering consciousness, our restricted observation, with so much wisdom, so much accessible knowledge pushing up into the region of thought, ready to take part in the life of the individual and of the community, that we need some like catholicity of temper, some similar alertness of attention, if we would, in any worthy degree, enter into our opportunities. We remain before the unrecognized material of thought as a dusty mirror, waiting to be wiped before it can duplicate within itself and within us the revelation of order and beauty. This form of knowledge may seem to transcend us, and it does transcend us, not as for ever escaping us, but as for ever enlarging itself as we look upon it. The apprehensive use and the serviceable use of the world are different from each other. It is not necessary that we should minutely examine, part by part, the work before us in order that we may understand its structural relations in the make-up of the world. If we are to use it as material in architecture or sculpture, flaws may baffle our labor or make it worthless.

We are not to hasten forward from knowledge to art, from apprehension to action, pledging all things in the doing of one thing. An active-passive attitude of observation is to have sway with us, time to complete itself, before we rush forward to conceive and frame a realm of small devices in gratification of immediate wants. Doing should be the summation of knowing, and knowing must underlie doing as a broad and secure foundation. Our present method is to have one narrow door into our workshop, which, material brought in, is closed with the obtrusive notice, "No admission." We do not say that there is no need of this seclusion and no wisdom in it. What we do say is that we insist on it prematurely, and follow it out too rigidly. We all need—the busiest workman needs it only the more—that living inspiration which can be gotten in the open air. Large volumes of air, the atmosphere as one whole, begin at once to purify themselves, and put health foremost;—all confined air contracts impurity, and deadens the effort that is expended in it. College life should be full of the force of life, and enter cautiously those restricted efforts, characterized chiefly by what they lay aside. It has to do with those many and primitive elements of strength without which growth ceases, reaching the end of the season. Men expend their labor for that which is not bread, because they have settled too hastily what is bread.

This process of putting ourselves in connection with the unconscious and the unknown in our surroundings, allowing it to play freely upon us and training ourselves to play freely upon it, are the great achievements of college life. This is the tide which, taken at its flood, leads on to fortune. If these days of enthusiasm pass without winning this liberty we shall not gain it. We shall go to our work before the sun is up, and not return from it till the light has forsaken us.

The general library, our medium of contact with the intellectual life about us and before us, must lie open to the eye, familiar to the thoughts, and stand out in odd moments and in accidental ways as the monitor of an existence never idle, never silent, always waiting like a living spring for those single drops that come to it, far and near. It is an irretriev-

able loss to shut down prematurely this quiet flow of knowledge; long, long before the presence of the unknown in its vastness, its interlock, its pushing power, has been recognized by us.

The need of this comprehensive mind, this sympathetic temper, is seen on every side. Narrow belief, undue intensity, a non-receptive and incommunicable temper, are the hourly infirmities of man. Intense convictions remain unsoftened and unsupplemented till classes and nations and races run against each other like frightened cattle, and destroy each other in the mere waste of ignorance and fear. In each calling, each profession, there comes to be a professional temper which approaches folly, and at times borders on madness. In the practise of law, a too controlling importance is attached to legal possibilities and methods, till at length they become a convenient cloak of fraud. This is accomplished with a narrowness and yet a candor of thought quite anomalous. We come to be afraid of the lawyer in the degree in which he is true to his profession and zealous in its pursuit. The physician is often dangerous in the degree of his technical knowledge. He has undue confidence in remedies, and little confidence in hygiene; while hygiene itself, in the mind of some devotee, sinks into extravagance. We use our reasoning powers to bewilder and mislead ourselves. As body and mind are companion agents, we hit upon a faith-cure, and in the attention we give to one of the two terms, lose sight of the other. Religious belief above all discloses the narrow grooves in which the mind runs. We have an infallible faith and a devilish unbelief. There rush in upon us convictions from all points of the compass, as positive in form as obscure in substance. The rulers of a nation frequently rest their conclusions avowedly or tacitly on a doctrine of force, which thrusts aside the spiritual world and lapses into fraud and violence. The military man incloses himself in his own thoughts, and while regarding suitable arms and impregnable fortifications as the only defenses of national life, suffers them actually to become the terms of tyranny. We discover, as in the war of 1870 between Germany and France, that the military leaders

of a nation have been for months and years in a minute preparation of the means of attack, which suddenly close in like the jaws of a trap. This may at times mean success, but it means at all times intense narrow-mindedness, a hardening of the arteries of our intellectual life which utterly unfits them for activity.

In a critical presidential election, like the one we have recently past thru, what currents, undercurrents, cross-currents and conflicting currents are at work; what tendencies which those who entertain them are hardly aware of and those who oppose them fail to measure; what obscure influences, private gains masked as public welfare, and public welfare identified with personal profit, harass, distract, and scatter voters to the four winds. In all this there is one wide stretch of ignorance and of knowledge, illuminated by mere flashes of thought and waiting for some sufficient revelation.

We are not overlooking the fact that human thought is necessarily ill informed and narrow, but are urging the fact that for this very reason the largest inlets of truth are to be kept open, the most varied and habitual play of influences to be maintained, that, if may be, we may each find his own path more certainly. We have no reason to shut ourselves up when the atmosphere is already too close. We must seek every avenue of approach to the world about us, the world behind us, the men that have been, the men that are; not pushing, but finding, our way forward. We are not to "cut ourselves off from the past, but to hold, unbroken in life and death, the ties which exist for us only in history." "Love, passionate curiosity, a sympathetic tentacular sensibility,—to these all worlds, spiritual or material, past, present or to come, yield the romance of discovery." While it is quite plain, and not to be regretted, that we are forced by the practical claims of the world to bring our powers to a point, and thin them down to a cutting edge, this constitutes no reason why we should not, or, rather, it constitutes a reason why we should, lay hold of the suggestions and inspirations of the large universe to which we are united, cease to treat them as impediments to success, and regard them as central terms in any

ample fulfilment. There is a joy in the ingress of thought quite beyond daily achievement. The pleasure of accomplishment is great and may be infused with a feeling of personal powers and personal distinction, but it is not comparable with that relaxation and recreation with which one faces the whole world, of which he is so insignificant and so significant a part. This is life among the hills and mountains, whose winds blow for all, where one watches things and forces as they enter into the universal, creative process. Our knowledge, so called, is chiefly of superficies and successions. The eye and the ear give these, and little more. But our superficies must be broad, our sequences go far, if they are to be the garment of the invisible world. It is narrow surfaces and restricted events that usurp thought, and get in the way of knowledge. It is strange how many men walk into a chasm, or drop into a fissure, possest with the idea that they are about to reach the interior of things and read their ultimate inscriptions. The visible and the invisible are commensurate. We lap ourselves in the invisible, as we float upon the ocean, with a profound sense of its depth. To come out frequently at odd moments, moments touched with divine concord, into the vision of the world, is to fill our lungs with air and feel a new impulse in viscera and limb. One of the places at which, even if it be but rarely, where a pervasive joy in life may be felt, is the general library, an unmeasured expression of individual and race activity in exploring the realms of thought. The more aware one is of the largeness of this kingdom of knowledge, the less can he afford to neglect the appeals which, unbidden, may find their way into consciousness, and pierce with new windows the thick walls of custom that have been built up about him.

The one consideration, which in some sense embraces this breadth of thought and depth of feeling, is spiritual health. That life is truly wholesome which is in habitual interaction with all the world about it. The one distressing thing in human life is that it so often fails to understand itself. Yet is not this failure a testimony to its scope? The failure may be in outward form or in inward force. We guard in various

ways against the first, but are frequently forgetful of the second, the bankruptcy of the mind in its own domain. The rarest thing among men is a wide, proportionate, ever justifiable and enjoyable mode of thought. Even science does not escape the censure of headlong conclusions in its own field, and still less does it escape it when it approaches philosophy, religion, and human life. The doctrine of evolution, profoundly as it is fitted to modify thought, has, by a perverse precipitancy, taken on an extreme form quite in face of the facts with which it is dealing. Even Darwin was aware of a limitation of spiritual insight, resulting from an intense and protracted watchfulness of physical dependences.

Political economy, a quasi science, has formed and held fast its conclusions, only partially regardful of the fact that society is subject to progressive changes which may much modify the forces involved in its theories. In our commercial and in our social temper we have attached a very extreme value to accumulations of wealth as an expression of prosperity, with little inquiry as to how this wealth has been distributed, and what preparation it gives for the next stage of development. Our prosperity is constantly on the verge of financial and social collapse, and yet we are so dazzled by the sheen of commerce as hardly to observe its danger. Many of our sins are nothing more than abortions due to limited systems of thought. We accept the present at its present worth, and then proceed to match our future to it. We judge men, classes, races, by the part they are playing in our daily life, and then attempt to crowd them permanently into bounds much too narrow for them.

Spiritual health, the power to feel and appropriate all spiritual incentives, and thrive on their nutriment, is the supreme personal and social possession. The absence of it is sure to issue in one or another disease of mind, through which weariness and failure overtake us. In our time, when specialization is so extreme, when our activities and estimates of welfare are running in such narrow channels, any method is ill-devised which weakens in some new way those general impressions and universal impulses by which our lives are made

full and harmonious. When our first demand is everywhere and always for sober and sufficient thought, we are in error in breaking up the one assemblage of human interests which finds expression in a large library, and parceling it out between separate heirs. This is dividing up an estate which owed its chief influence to the union of its parts. Our individualism is extreme. What we now need both to sustain and to control it is a sense of union in the output of our lives, a sense of their constant return upon themselves. What a man is, he is by and toward his fellow men, and this fellowship is the medium of his existence. Participation in knowledge is the condition of its enlargement, and as we cease to partake in wisdom we shall cease to bestow it.

John Bascom

Williams College

V

THE INTERPRETATION OF THE COLLEGE ENTRANCE EXAMINATION BOARD'S NEW DEFINITION OF THE REQUIREMENT IN PHYSICS

On April 17 last, the College Entrance Examination Board adopted a new definition of its requirement in physics. In order that physics teachers may have the opportunity of altering their methods of teaching at once, the Board voted that this requirement should become effective for the examination in June, 1910. The new definition has been printed in full in the EDUCATIONAL REVIEW for May, 1909, and in *School science and mathematics* for June. Copies of it may be obtained from the Secretary of the College Entrance Examination Board, Columbia University, New York.

The new requirement opens a new epoch in physics teaching. Those who believe in encouraging the study of physics in secondary schools should be grateful to the College Board for thus taking the lead in the work of making this study intelligible and of both practical and educational value to all the pupils in the high schools, whether they are going to college or not. This has not been possible so long as schools were obliged to prepare some of their students under the old requirement.

The College Entrance Examination Board is also deserving of hearty commendation for the method which it employed in securing the new definition. In the past definitions of this sort have been framed by committees composed largely of college men. But the Board apparently now recognizes that the secondary school teachers—the men who are actually doing the work and who therefore understand the needs and the possibilities of the high school pupils,—are better qualified to determine what constitutes a rational requirement: for this physics

requirement was not adopted until it had been carefully revised and corrected by a committee composed entirely of "successful and experienced teachers of physics who are at present actively engaged in teaching physics in public secondary schools."

The success of the new definition is thus due not only to the effective work done by this committee of secondary school men, but also in large measure to the College Entrance Examination Board's wise and progressive new policy, which made possible the appointment of such a committee and the reference of the whole subject to it. In the acceptance without question of the report of this committee, the College Entrance Examination Board has set a precedent which, if followed consistently in all subjects, would soon solve the college entrance problem in a way that would be eminently satisfactory to all concerned. The colleges would get students better able to do college work, and the high schools would be able more effectively to serve the communities which support them.

Passing to a consideration of the new definition, let us note some of the more important innovations.

1. The first paragraph of the introduction places a minimum time-limit on the work that must be done before taking the examination. Each candidate must bring his teacher's certificate that his course in physics has included at least 120 hours of school work. The value of this restriction is evident. The concepts of physics can not be grasped over night; they must have time to grow and to become clear by repeated and varied use. This requirement insures time for such growth, and prevents the attempt to "learn" physics in two weeks solely for examination purposes.

When taken in connection with the shortness of the syllabus of required topics, this restriction opens to the teacher a large field of investigation and experiment in effective teaching. One of the most serious difficulties in the teaching of science is that of securing an adequate amount of repetition. This difficulty is not great in language work; for example, a rule of grammar may be repeated daily if desired, each time in relation to some new context. But no one has as yet devised a course in physics in which such repetition is found. Because of the

attempt on the part of the text-books and the teachers to keep pace with the marvelous growth of physics, which has resulted in a large increase in its subject-matter, the problem of securing suitable repetition has been growing more difficult each year. The result has been that current texts resemble encyclopedias, and current courses have become so overloaded with subject-matter, that the best the teacher could do was to try to "get over" as much of this material as was possible in the time allotted to him by the school. With a comparatively short list of required topics, and a time requirement, the teacher will be able to study carefully the problem of securing adequate repetition of concepts, so as to be sure of developing those concepts more clearly in the pupils' minds.

2. A second important point in the new definition is the prominence which it gives to the practical side of physics. The syllabus contains relatively few of the practical applications; and rightly so, because these applications are different in different communities. The teacher is, however, urged "to add liberally to them"; and it is certain that most teachers will follow this advice, since history shows that science has originated in a study of the means of perfecting useful devices, and the most successful teachers have found by experience that science can be made much more real and vital to young pupils if practical applications are used at the very beginning to introduce each topic.

On this point educators are fairly well agreed at present. Each individual's clear concepts are formed from his own personal experiences with phenomena, and each individual thinks clearly and definitely in terms of concepts which have been formed in this way. In other words, the materials of instruction must be concrete, and such materials are "concrete only when they deal with real things and with actual, significant situations." [1] Facts, isolated from their original association, and having now no specific function, are abstract. Hence, if the concepts of physical science are to become clear to a pupil, they must be developed from experiences which deal with real things and significant situations and which are not

[1] McMurry, *Teachers College record*, Vol. VI, No. 2, page 6.

isolated from their original associations. The current practise of beginning each topic in physics with definitions or statements of laws, instead of with concrete experiences, does violence to the normal processes of acquiring knowledge that is definite and usable.

The prominence given to practical applications is thus one of the best features of the new definition. It is certain that the skilful and successful teacher will begin each topic with a study of such of these applications as are familiar to the pupils in his particular class.

3. Another very important feature of the new definition is the omission of the absolute units. Since the heart and soul of physics is measurement, and since measurement is possible only after units have been defined, the problem of defining units is a very fundamental one in physics. In the development of physics into its present highly complex and abstract form, the definitions of the units used in its measurements have also developed slowly into their present form. When the science was young, the units used were defined in terms of those phenomena which impress human senses most forcibly. Thus weight is a property which impresses the senses in a marked way in most daily experiences. Hence units of weight were established and used long before any one ever thought of defining the unit of weight in terms of the two factors mass and acceleration.

Before steam engines were invented, work was done by horses in treadmills. As a result of this, the work that a horse could do in a certain time was an early unit of work,—a unit which still survives in our horse-power-hour. We also reckon work roughly in terms of the work a man can do in a given time, as when we say it requires two days' work for two men to build a chimney. It was a long time before the unit of work was separated into the two factors of weight and distance, and the foot-pound was introduced. This is still the only unit of work used by engineers.

The absolute units have been introduced very recently, having been developed in response to the growing demand of science for greater accuracy by a process of abstraction in

which immediate sense impressions and intuition have been pushed into the background to make way for greater rigor and more perfect logic. Teachers are apt to forget that beginners do not appreciate and are incapable of assimilating this refined rigor and logic. The appreciation of these must be developed slowly in the individual as it has been in history. The attempt to make beginners comprehend the absolute units is futile; and experience has shown that high school pupils do not, as a matter of fact, gain clear and usable concepts of these units, notwithstanding the strenuous efforts of the teachers to make them do so. Besides, of what use are they to the great mass of the pupils, even if they did learn to use them in their physics work? These units are used at present only by the professional scientists; and how many of the 125,000 students of physics in the high schools each year become scientists?

Yet quantitative work is necessary in elementary physics, since measurement is the heart and soul of that science. It is, however, perfectly possible to do the necessary quantitative work in terms of the older and more intelligible units with as high a degree of accuracy as the pupils are able to appreciate, and with a great gain in their appreciation of the value of quantitative and definite knowledge. Such quantitative work should be carried on in whole numbers, as it were. It shows far better scientific habits when a student gets as the answer to a problem twenty-two foot-pounds, even if the number is not so very accurate, than when he brings in as his result the number 3.0481723, and is unable to specify clearly the unit in terms of which the result is exprest. In the words of the new definition, "The exercises should be free from the disguise of unintelligible units."

Thus again the new definition of the physics unit shows that progress is being made. The teachers who framed it have evidently learned from their own experiences that the best results are obtained with beginners if the attempt is not made to teach in the first year the entire science of physics in its present complex form. This is a most important and significant change of front, because it indicates first: That the

course is being framed in the interest of the great mass of students instead of in the interests of the thousandth of one per cent. of them who become physicists annually; and second: That the enthusiasm among teachers for finished science and subject-matter is giving way to a desire to have their pupils comprehend and clearly grasp their work, and gain in power and efficiency thru it. Henceforth the teaching of physics will be subordinate to the teaching of boys and girls.

4. Equally commendable with the omission of the absolute units is the omission from the new definition of many of the larger theories of physics; such as the kinetic theory of gases, the theory of ions and electrons, and the electromagnetic theory of light. Theories of this type can be rightly understood by any one only on the basis of a large fund of definite knowledge of concrete facts derived from individual experiences with material things. A pupil must have clear concepts and precise ideas concerning how phenomena take place and what material things will do before he can speculate and form hypotheses successfully.

If the more comprehensive theories are presented to a beginner before he has an adequate fund of definite knowledge of concrete facts, not only is his power of framing hypotheses blunted, thereby killing his scientific imagination; but also he soon comes to regard those theories as finalities, and is then unable to distinguish clearly between facts and theories—between knowledge and belief. To be able to frame fruitful hypotheses and to distinguish between facts and theories, is of fundamental importance for scientific,—i.e., clear and definite thinking. Without this ability, progress in science would be impossible, because scientific growth depends on the creative power of hypotheses.

The current teaching of this type of theory often leads pupils into habits of what Professor William James calls "vicious abstractionism," in his significant article on a very prevalent abuse of abstraction in the *Popular science monthly* for May, 1909. Samples of this are the following: "An electron is nothing but an electric charge in motion." "Light is simply waves in the ether." "An electric current is nothing

but an electron current." Of this form of conclusion Professor W. S. Franklin says (*Science,* June 11, 1909, page 938): "As if one could be placed under obligations to understand clearly any physical fact in terms of an extremely vague hypothesis!" To a person with a mind given over to vicious abstractionism, the precise ideas essential to scientific thinking are impossible. Those who treat science in this way are but searching for the pot of gold that lies buried at the end of the rainbow.

5. A final important point in the new definition is the statement which immediately precedes the syllabus of required topics; namely, "It is expected that the teacher will arrange these topics in such order as to suit his individual needs." It is to be hoped that every teacher will take careful note of this statement before reading the list of topics. If it were not for this statement, it would appear that the syllabus simply stamped into fixt form current unfortunate practises. Because of this statement, teachers will be able to experiment and to make progress along the lines just suggested.

In closing, a few suggestions as to how the order of topics might be changed to make the teaching of the subject more successful will be added. The order of the syllabus is unfortunate wherever definitions and laws come first and experiments and applications after. For example, the first section reads: Metric system, Linear measure, units: meter, centimeter, etc. It is far better for the student to introduce these definitions when a need for making a measurement appears in the process of solving some problem or of settling some questionable point in the discussion. Only thus will the definition be concrete and the concept it embodies clear.

Section II A reads: Pascal's law of fluid pressure. The hydraulic press. For the reasons just given, the order might better be reversed. The law must come out of the experience, and not the reverse. In like manner, the topic: Conservation of energy, occurs in the middle of mechanics; whereas no student can appreciate it as a scientific conclusion until he knows something of heat and electrical energy and their interrelations. Presented early in the course, it becomes to him

a dogma to be accepted on authority instead of being a well-substantiated hypothesis of great fertility.

The first topic in heat is: Heat—a form of energy. This conclusion ought not to be reached until the student has drawn from concrete experience a large fund of information about the properties of heat. In light, in like manner, the first section is: Definitions: Light, luminous bodies, etc. A much better order would be: The pin-hole camera, rectilinear propagation of light, the eye, the photographic camera, refraction, etc. If only we teachers could get a realizing sense of how injurious it is to the scientific spirit of our pupils to be forever telling them what is right and what wrong in science, immediate improvement in our work would result. Pupils should gain from their study of science a habit of framing and testing hypotheses for themselves, but we are constantly breaking up this habit by too quickly telling them things they should find out, and correcting their supposed mistakes from the point of view of current scientific theory.

The syllabus also contains some topics which should be treated only qualitatively or else omitted entirely. The teacher may, however, transfer the quantitative treatment of these topics to the end of the course, omit it entirely for those who are not going to college, and cram those who are preparing for an entrance examination on it at the last minute. Since experience has shown that the high school pupils can not assimilate the quantitative treatment of these topics, the order just suggested will meet any quantitative requirement with a minimum of injury to all concerned. "Getting over" the quantitative treatment just before examination will also increase the college-bound pupil's chances of passing.

The most important of the topics that may to advantage be handled in this way are: Mass, density, Newton's laws of motion, force (as ma), momentum, uniformly accelerated motion, falling bodies, relation of weight and mass, law of universal gravitation, absolute zero, relation between direction of current and lines of magnetic force, direction and magnitude of induced electromotive force, electrification by induction.

Because of the omission of the absolute units from the syllabus, we may infer that the omission of the quantitative treatment of force (as mass-acceleration) and of Newton's laws of motion is to be permitted. If the majority of teachers will interpret it in this way, a great step in advance will have been made. The number of hours that is annually wasted in attempting to teach the quantitative side of the topics in the last paragraph is appalling. It is to be hoped that teachers are now ready to follow the advice of Professor Edwin H. Hall of Harvard, when he says: [2] "I should have been perfectly willing, in my capacity as a college teacher of physics, to see all reference to the quantitative aspect of Newton's laws of motion excluded from the revised physics requirement of the College Entrance Examination Board. But the school teachers of physics have ruled otherwise, and accordingly we are still concerned, in associations such as those meeting at Hartford, to find the most profitable exercise dealing with the facts and laws of acceleration." And again: "I gave the inclined plane method (of finding the accelerating action of a uniform force) a painstaking trial for two or three years; but it was finally cut out, not so much because my pupils could not get satisfactory measurements of distances traveled in one, two, or three seconds, as because we could not make profitable use of such data when we had them. Let the teacher who thinks of setting up such an exercise as that here alluded to, or any other giving like results, assume that his pupil has found the distances correctly. What is to be done with them? We can show the pupil that, if acceleration has been uniform, the distances for one second, for two seconds, for three seconds, etc., must be in the ratios of one, four, nine, etc. Suppose that he applies this test and finds that his measured distances do have these ratios. What have we learned? That the center of a ball rolling down an incline, under the conditions here existing, has uniform acceleration. Is this result sufficiently instructive to justify the time and care that have been given to the exercise? I think not. Such was, and still is, my conclusion after some years of trial."

[2] Report of the joint meeting of the Physics Club of New York and the Eastern Association of Physics Teachers, April 24, 1909, p. 36.

Had the committee applied Professor Hall's criteria to all the topics in the syllabus, I am sure some of the objectionable ones would have been omitted. When you have the result, what is the student to do with it? What has he learned? Is the result of sufficient value and use to the pupil, not to the physicist, to justify the time and effort that must be expended on it? Are there other topics that would give the pupil larger educational returns for the same time and effort?

At the meeting of the Department of Superintendence of the National Education Association in Chicago last February, Professor J. L. Meriam suggested four principles to guide in the selection and arrangement of the content of a curriculum. In the hope that physics teachers will make constant use of them in framing their individual courses, as they are free to do under the new requirement, I will in closing quote them.[3]

1. That content has a place in the physics course which meets real, present needs of the pupils.

2. Only that content has a rightful place, in the study of which the pupil has a conscious motive.

3. Only that content may be admitted which the pupil can comprehend and the significance of which he can appreciate.

4. Only that content may be admitted which contributes to the continuity in the development of the special problem being studied.

C. R. Mann

The University of Chicago

[3] Proceedings of the Department of Superintendence, 1909, page 17.

VI

A NEW METHOD OF ADMISSION TO COLLEGE[1]

When I heard the secretary read just now the minutes of the 160th meeting of this organization, and when I recalled the subject upon which I have been asked to speak briefly and informally this morning, I felt moved to paraphrase a familiar line of Horace, to the end of suggesting that, while we have changed our date, we have not altered our problem. I am one of the very few persons in this room—there are not more than two or three, I think, at most—who recall the meeting at which this Association was organized. It was organized for the express purpose of considering the question of college admission and the problems relating to it; I find now, by the terms of your order of business, that you are still dealing with that problem today. It would not be fair, however, for me to infer, or to permit you to infer, that no progress has been made in regard to this matter during the past eighteen or twenty years. As a matter of fact, we have progressed far more rapidly and in a far more healthy direction, than I, for one, should have ventured to hope when you first came together in this Schoolmasters' Association.

Moreover, this particular body has taken a very leading part in what has been done. Those of you who have come into this Association in recent years may not be familiar with the early committees and early reports by which the scholarship and experience of the schoolmasters of this city and vicinity found expression in ways that have since commended themselves very widely to colleges, and that have helped to bring about new relations between colleges and schools generally.

There is nothing that I could say about this subject in a

[1] Stenographic report of an address before the Association of Schoolmasters of New York and Vicinity, April 24, 1909.

technical way that you do not already know; because many of you are brought face to face with its technical details every year. Therefore, I shall confine myself to speaking about some general principles which underlie the problem of college admission, and which are now coming to be more or less clearly understood.

In the first place, let me remind you of the extreme difficulty of the problem of college admission, owing to the condition in which our American education finds itself. Before one can secure the consideration of any of these large educational questions in the public interest, he must first instil into the minds of those who control the policies of a given educational institution that it exists primarily for the public service. Not a few colleges have considered themselves and still consider themselves entirely private institutions without any accountability to the public interest or to public opinion, no matter how many students they have, or how large the endowments they control. They choose to think that they represent some particular type of education, and they feel compelled to stand for that type or ideal, come what may. As a matter of fact, they do not stand for any particular type or ideal, except selfish lack of public spirit, and incapacity for coöperation. We have all of us seen a great deal of injury done to secondary school work by individuals who hold positions of influence in the college service, and who have resisted the invitation of schools to coöperate in working out their common educational problems in ways that would serve the largest public interests.

Very great progress has been made since this Association was organized, however, and it has been made chiefly thru the establishment of the College Entrance Examination Board, which this Association was influential in founding, and has been influential in conducting. It was obvious that if we were to go forward in regard to this question, we must at least progress to the point where the schools and colleges should be brought to understand that they have a common problem. We have now gone so far as to secure thru the College Entrance Examination Board not only a single uniform system of college admission examinations, held all over the

United States; not only a single uniform system of reading and rating the examination books of candidates; but we are able to do these things by the coöperation of school and college teachers. Moreover, by this same coöperation we are now able to secure revision and simplification of the definitions of subjects or topics on which examinations for admission to college are set, in the interest of better secondary school organization and teaching.

A striking, and what seems to me a rather dramatic, incident in this regard took place in this city just one week ago. You are all aware how unsatisfactory the definition of the college entrance requirement in physics has been for many years. You know how unfortunate it was alike in its emphasis and in its details. You know how urgent were the influences that led to its original formulation and that it was accepted because any uniform definition of physics seemed better than no definition at all. The complaints against it were so emphatic and so widespread, particularly in the Western States, that the College Entrance Examination Board two years ago secured the appointment of a committee to revise that definition and to bring it into a more satisfactory condition. A year ago it appeared that this committee could not agree upon a unanimous report, or, indeed, upon any report. The matter was farther considered, differing views began to be harmonized, and it was finally agreed that the proposals of the committee should be referred to a commission of six secondary school teachers, and that all parties in interest would abide by whatever determination these six secondary school teachers might reach. They arrived at a unanimous conclusion, and on Saturday last their report was adopted by the College Entrance Examination Board. In other words, there is now to be a great change in an important subject of secondary school study, and an important subject on which college admission examinations are set, which change is the result of study and conference on the part of both college and secondary school teachers. It yet remains to be seen whether what the six representative secondary school teachers chosen from New England, the Middle States, and the West, have agreed upon is

satisfactory from the secondary school point of view; and whether it will work for good or for ill. But at all events we have hit upon the right way of dealing with these problems, a way which draws the colleges and schools together as each new problem is approached and its solution attempted.

Admission to college is not a problem of secondary schools alone. It is one part of the problem of the education of a human being, in the solution of which the secondary school plays an influential part, but by no means an isolated part. I use the word human advisedly. We have become accustomed to depend too much upon machinery, on formulas, on rules and routine, and, according to my thinking, one of the first steps to be taken in order to carry our work forward more satisfactorily is to bring back the human element much more largely than is now the case, into the problem of transferring students from one type of school to another, from secondary school to college, and to treat their progress in this respect as normal and uniform, and not as resembling a transition from an earthly to a celestial sphere. There are two views held nowadays about a surgical operation. One is that the operation is a thing apart, to be considered and treated as an end in itself; the other and wiser view is that a surgical operation is but one stage in the general treatment of a diseased condition, and that it is but one part of a process which properly begins before the operation is undertaken, and which continues for some time after the operation has been successfully concluded. Just so there are two views of the college admission examination. The first and incorrect view is that it is an end in itself, an abnormal and extraordinary undertaking; the other and correct view is that it is but part of the normal and continuous progress of the pupil in his task of gaining a formal education.

It is necessary that we should bring ourselves completely to this second point of view, from which the transition from school to college is not regarded as a change of educational state, but merely as a step, natural and simple enough, in intellectual and moral development. It so happens that our system of educational organization divides the work of the pupils

at the adolescent period between two institutions, the secondary school and the college. It is, however, an error of the first magnitude to suppose that because of this division, which does not correspond to similar divisions in other countries, some profound intellectual and moral change takes place when the pupil crosses the line which separates the one type of institution from the other. If there is any such profound change I should like some one to point out the evidence for it; because, after twenty-five years of observation, I have not been able to find it. It is important, then, that this transition from school to college should not be elevated, either in our thought or practise, into a position of false prominence, out of all proportion to its true educational importance, and to the just relation which it occupies to the training which has preceded it, and to that which will follow it.

In bringing about this transition from school to college, it is important that we should deal with it as a human problem. We should take into consideration not only the individual's scholastic achievement, but his temperament, his home environment, and such hopes and plans for future life as are already forming in his mind, or have perhaps been formed for him. It is this human aspect of the problem which most interests me, and I wish in particular to tell you what we are now proposing to undertake at Columbia in this regard. We think we are at work upon the application of a sound educational principle, and we shall be only too glad if our example is widely and speedily followed by other colleges.

By way of precaution let me say that in the vigorous discussions that have gone on for many years as to the relative value of admission to college by examination and by certificate, I have steadily opposed the extension of the certificate system. I know only too well the abuses to which it leads; the kind of pressure to which it forces school officers to yield; and the utter futility of such systems of school inspection as have yet been devised, as a protection to the colleges against the acceptance of certificates from incompetent and inadequately equipped schools. Even if I did not feel strongly the disadvantages of the certificate system, I should not be willing

to give up the college admission examination; and for the reason that one of the most useful exercises that a human being can ever be trained to, is to do what is hard and distasteful for him. In practical life we are called upon to do this sort of thing all the time. When the college teacher is told by parents and school-teachers that secondary school pupils are nervous, that they have never been in a given examination room before, that the weather in June is apt to be hot, and that the subjects succeed each other with extraordinary swiftness, the proper answer is that, however much one may regard all these things, the sooner that school children become accustomed to work under these unfavorable conditions, and under conditions which subject them to a nervous strain, the better. This is what adults are doing all the time, and by sixteen years of age it is time that a child had some little taste of it by way of preparation. This experience may be hard on pupils, but it does them good. Disadvantage only begins to accrue when this college admission test, held under conditions which must of necessity surround it, is treated by the college as an end in itself, as standing in no relation to the pupil's school work, and as that by which alone he must stand or fall in his candidacy for college admission. It is just at this point that we at Columbia think we are making a new and helpful departure.

We have discontinued the separate committees on admission, which have heretofore past upon the applications of students who desired to enter either Columbia College, Barnard College, or the Schools of Applied Science. We have united these three committees and their work in one body, to be known as the Committee on Undergraduate Admission. This committee will have jurisdiction over all questions relating to the admission of any student who comes to Columbia University for undergraduate work of any kind whatsoever. To the chairmanship of this committee an officer has been appointed of professorial rank, with no other present duties. Instead, therefore, of having to deal with the important questions of college admission in such spare moments as he can steal from classroom work, this chairman

will be able to devote his entire time and thought to this one problem. We propose to have him make the personal acquaintance of the principals and classroom teachers of those schools which are in the habit of sending us students. We propose to have him come into personal touch with schools and teachers, to know as much as possible of their point of view, and of the way in which their work is planned and carried on. We wish to have him become familiar with those schools in which students gain some particular advantage, because of the way in which some special influence is brought to bear upon their intellectual and moral development. Then we propose that when our committee weigh the question of admitting or rejecting a student, they shall not be guided simply by the mark or grade that he gets at the college admission examination, but that weight shall also be given to his secondary school record as that is written in the books. No good teacher uses the term or annual examination as the sole test of his pupil's progress. He weighs in connection with the results of the term or annual examination the record of the pupil's work in the classroom or laboratory, day by day, and week by week. We propose to apply this same method of procedure to college admission. We shall not permit schools to certificate pupils to us as qualified for college admission without examination, but we shall ask schools to give us transcripts of the record of their pupils, in order that consideration may be given to these records, together with the results of the college admission examination.

In other words, without surrendering the great educational advantage which we believe the college admission examination has, we propose to put that examination in its proper place, to give it its just proportion in weighing the question of fitness to undertake college work. You will at once observe that if we can bring about this change we shall have very much altered the importance of the student's rating in the college admission examination, and we shall have been able to relieve him to that extent of some portion of the strain which unfavorable and strange surroundings put upon him, without in any way diminishing the educational value of the examina-

tion. Moreover, we shall be exerting our influence to put the college admission examination itself in its proper place in the mind of the secondary school teacher, and in the mind of the student. Both teachers and students will come to see that the college admission examination is not something apart from the ordinary school work, something to be crammed for and prepared for by tremendous and special effort, but that it is simply one exhibition of the pupil's knowledge and power by the side of which will stand the record of his whole performance during his secondary school education. It is obvious that under this plan a student who has obtained a very excellent school record for three or four years, would have to make a pretty poor exhibition at the college admission examination in order not to be admitted. A student with a bad school record would have to pass a very excellent examination to get in. The average student would probably not do so very differently at the time of examination from what the record of his school work would lead one to expect. Every teacher is familiar with the so-called examination fiend, the student who can always pass examinations better than any one else, who possesses that peculiarly tenacious type of memory which enables him to make an admirable performance under difficult conditions. Such a candidate would have by the side of his examination record the record of his performance at school over a period of years. Both together would not be likely to mislead the Committee on Admission.

In addition to that, we propose that, in all doubtful cases, before a decision is arrived at, either in the affirmative or the negative, there shall be a personal interview between the candidate and the chairman of the Committee on Undergraduate Admission. It is our plan that the student whose case is in doubt shall be actually seen and talked with by a university officer, in order that some sort of opinion may be formed of his personality and attainments. He can then be advised whether he ought to accept admission to college under severe conditions, or go back to the secondary school to spend another term, or another year, if necessary, in order to prepare himself more thoroly for the work of college or the scientific

school. If by this means we can get a system under which both the examination and the school record are used to determine the desirability or fitness of a student for admission, and add the provision of a personal interview or inquiry in all doubtful cases, we shall have gone far forward in introducing what I call the human element into the solution of this problem. Candidates for college admission would no longer be regarded as mere numbers or letters, to be recorded on a tabulated list by the terms of some hard and fast rule.

In order that we may not allow this human element to escape us, we are also proposing that this Committee on Undergraduate Admission shall keep in touch with students after their admission, in case there is any reason for doubt as to the satisfactory character of their progess. A boy may be ambitious and genuinely anxious to succeed, but yet may not be able to adjust himself to his new environment without help and counsel. If he were still in school he would be advised and helped about all such matters. On the other hand, it is the habit of the college to-day to treat this side of the boy's nature as quite alien to it, and to leave him to trust to luck or to his own unaided resources. Under these circumstances where one boy makes the most of his opportunities, two boys fail to do so. We are going to ask our committee to try to follow these students personally and earnestly, with a view to helping them where they need help, advising them where they need advice, and in general starting them with sure foot on the right way to take advantage of the college course. If we can accomplish all these things—and we are going to try hard to do so—I think we shall have made no small contribution toward the final solution of the problems of college admission. We shall have found a way to remove many criticisms which are now urged upon the results of the examination system pure and simple; but most important of all, we shall have changed the opinion, both of the college teacher and of the school teacher, as to the character of the transition from school to college. We shall have helped to make it appear a normal and ordinary occurrence, not an extraordinary and cataclysmic event.

There is another aspect of this matter about which I wish to say a word. We used to have at Columbia, and I suppose most other colleges had or still have the same thing, a system of deciding upon the results of college admission examinations on a purely mathematical and formal basis. Every boy who had complied with the minimum requirement was accepted for admission and substantially everybody else was rejected. It became evident to some of us that this was not sound educational practise, and we found a great many parents and a great many school teachers who held precisely the same opinion. At that time I was so fortunate as to be a colleague on the college faculty of the late Professor Price. Largely at his initiative and owing to his influence we relaxed the rigorous application of the printed rule and endeavored to show some appreciation of the human element in the problem of college admission. We found a good many boys who had not quite fulfilled the minimum requirements who, nevertheless, when once admitted to college, made excellent students, sometimes the very best. Then it dawned upon us that our mistake consisted in endeavoring to use, as a final and absolute test of fitness to enter college, an examination which was not entitled to have any such preponderant weight. We discovered that by the strict application of our form of rules we would keep out of college almost as many good and well prepared students as we would let in. In other words, if a college fixes a hard and fast entrance requirement and rejects every one who does not comply with it strictly, that college will do as much damage to education as if it had no standards at all. Human beings can not be measured as to their attainments by the laws of mechanics. They must be measured by laws which spring from human nature itself. The real way to deal with these candidates who in some measure fall short of the minimum requirements is to say, for instance, in some cases, "You are not ready to come to college. If we admit you, we know you are going to be burdened with your work. You will probably fail in the examinations of your Freshman year. You will have neither pleasure nor profit in the work of that

year. It will be intellectual economy for you to go back to a secondary school for another term or year, and to take up once more there the subjects in which you appear to be weakest." In other cases it may be wise to say, "It is true that you have not entirely complied with our minimum conditions of admission. Nevertheless, you are in good health, your school record for four years past is satisfactory; it is not bad even in those subjects in which your examination is pretty poor. Therefore, we feel that there is reason to believe that you can probably do yourself justice in college, making a creditable record. We are going to give you a term or a year to prove whether we are right or not." In this way, without in any particular lowering the standards of admission, we apply those standards so as to improve educational conditions and not so as to do them damage.

One of the most important changes that has come over the American college has gone hand in hand with the steady widening of its constituency. When the American colleges were young, indeed when some of them were old and substantial, there were very few boys who went to college without a serious, definite purpose. They were looking forward to the ministry, to teaching, to law, or to medicine; not many of them looked forward to merchandizing or to finance. This condition is now entirely changed. It has become fashionable to go to college, at least to some colleges, and a great many boys are now going to college each year who, I am convinced, get more harm than good from their college residence and college life. This new type of college student goes to college primarily for a social purpose. He desires to share in the attractive associations of an American college. He desires to participate in athletic sports. Not infrequently he is looking forward to becoming eligible for membership in the University Club of his native town. It is, on the whole, a good thing that boys of this type go to college, provided the colleges will recognize their existence as a type and will deal with them accordingly. The mistake that has been made is in treating this new type of undergraduate, in judging him

and testing him by the same academic standards and academic methods that have been developed for the serious minded student. When this happens, only one of two results is possible. You must either let down your whole standard of scholarship to meet the capacity of this rapidly growing element of the college population, or you must bring up the performance of this new element to the traditional standards set for serious minded men. Neither of these results, however, is either wise or in the long run practicable. The real escape from the dilemma is to learn the lesson taught by the University of Oxford, which is to draw a distinction between the treatment and the prestige accorded to those who come to college as serious minded students and those who come to college for the sake of the incidental social benefits which the college has it in its power to confer. Oxford has long distinguished between the candidate for the pass examination, and the candidate for the honors examination. I hope that the day is not far distant when we at Columbia will apply the principle underlying this distinction to our American conditions. Let the new type of student come to college, if he will, but say to him distinctly at the outset, you must subject yourself to the discipline of proved value which is offered in this particular curriculum. If you will pursue those studies satisfactorily and stay here four years, conducting yourself like a gentleman, you may be graduated with a pass degree. On the other hand, let it be said to the scholar, here is the full, rich opportunity of modern science and modern literature spread before you. We will do the best we can to seek out and to help you express your native capacities and preferences. We will allow you to combine in any practicable fashion the studies which interest you, and in which you prove yourself successful, and which enables you to grow intellectually and morally. We will lead you on to graduation with honor and distinction, and give you a special crown or palm of scholarship. When the colleges generally recognize this distinction and act in accordance with it, they will have adjusted their methods to the changed con-

ditions of the twentieth century and will silence much of the criticism now raised against them.

After all, this again is merely the introduction of the human element into the life and work of the college, and it is this human element that we are seeking and have need for not only at the time of college entrance, but thruout the college course. We are constantly making headway despite the many and dolorous voices that rise on every side of us to urge contrary opinion. When you remember how far we have come in twenty years, you will perhaps agree with me that it is not unreasonable to believe that we are approaching the time when every college authority will realize that the college entrance examination is not a boundary between two strange and alien educational territories, but rather a bridge, well and helpfully guarded, over which those may pass who go from one friendly field to another. The introduction of the human element into the administration of college admission requirements and into the college admission examinations, is the way out of our difficulties. In the creation of the committee whose existence and functions I have described, we at Columbia have done the best we know how to do toward accomplishing this end.

NICHOLAS MURRAY BUTLER

COLUMBIA UNIVERSITY

VII

CURRENT EDUCATIONAL PUBLICATIONS[1]

Arles, Henri d'. Le Collège sur la colline. Paris, F. R. de Rudeval, 1908. 95 p. 8°.

"'Le Collège sur la colline.' 'The college on the hill.'—C'est sous ce . . . nom que . . . l'on designe l'Université Brown."

Ayres, Leonard P. Laggards in our schools; a study of retardation and elimination in city school systems. New York, Charities publication committee, 1909. 236 p. 8°.

Benton, Guy Potter. The real college. Cincinnati, Jennings and Graham; New York, Eaton and Mains [1909] 184 p. 12°.

"One of the memorial volumes issued in connection with the exercises attendant upon the celebration of the one hundredth anniversary of the founding of the Miami university—A real college."

Brown, John Franklin. The American high school. New York, The Macmillan company, 1909. 462 p. 12°.

CONTENTS.—Historical.—Function of the high school.—Program of studies.—Organization and management.—Material equipment.—Teacher.—Principal.—Pupil.—Class exercise.—Government.—Social life.—High school and the community.—Present problems and future development.—Appendices.—"The problems of the American high school are specific . . . The experience of the last half century has revealed them; it has also developed a considerable body of knowledge concerning them, which every high-school teacher should possess before entering upon his work . . . This volume is an attempt to present such information."—Pref.

Candler, Warren A. Dangerous donations and degrading doles, or a vast scheme for capturing and controlling the colleges and universities of the country. [Atlanta, Ga., 1909] 53 p. 16°.

Coe, George A. Progress in religious and moral education; the annual survey, presented before the sixth annual convention of the Religious education association. [Chicago, 1909] 16 p. 8°.
Reprinted from Religious education, April, 1909.

Dewey, John. Moral principles in education. Boston, New York [etc.] Houghton Mifflin company [1909] 61 p. 12°. (Riverside educational monographs, ed. by H. Suzzallo)

Dickson, Virgil E. The high school curricula in the United States; a comparative study. Olympia, Wash., E. L. Boardman, public printer, 1909. 30 p. 8°. (Washington (State) Dept. of education. High school bulletin, no. 6)

Dodge, William C. Schools in the District of Columbia . . . Article . . . entitled, "The schools and school buildings of the national capital; what they are and how obtained." [Washington, Government printing office, 1909] 18 p. 8°. (U. S. 61st Cong., 1st sess. Senate. Doc. 86)

[1] Compiled by John D. Wolcott, Acting Librarian of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

Eliot, Charles W. Education for efficiency, and The new definition of the cultivated man. Boston, New York [etc.] Houghton Mifflin company [1909] 57 p. 12°. (Riverside educational monographs, ed. by H. Suzzallo)

Engeln, Oscar Diedrich von. At Cornell. Ithaca, N. Y., The Artil co. [1909] 346 p. 8°.

Handbook to the technical and art schools and colleges of the United Kingdom; compiled from official information, with an index to courses of instruction. 1st ed. London, Scott, Greenwood & Son, 1909. 140 p. 8°.

Harvard university. Associated Harvard clubs. Reform in city school administration; report of the Committee on public school administration, prepared for consideration and discussion at the annual meeting of the Associated Harvard clubs, Cincinnati, May 28th and 29th, 1909. [Cincinnati, 1909] 34 p. 8°.

Hayes, Ellen. Letters to a college girl. Boston, G. H. Ellis co., 1909. 68 p. 12°.

CONTENTS.—Foreword.—College activities.—The elective system.—The study of science.—The study of mathematics.—English and literature.—Undergraduate specializing.—A baccalaureate note.

Hayward, Frank H. The primary curriculum. London, Ralph, Holland & co., 1909. 465 p. 12°.

Hollister, Horace A. High school administration. Boston, D. C. Heath & co., 1909. 379 p. 12°.

CONTENTS.—A backward look.—Legal status of high schools.—Place of the secondary school in our system of education.—Grounds, buildings, and equipment.—Textbooks and other supplies for the use of pupils.—Employment of teachers and organization of the instructional work.—The program of studies.—Adolescence and coeducation.—Discipline; its purpose and spirit.—The life of the school.—Method as applied to high-school instruction.—Examinations, promotions, and graduation.—Relation of the high school to colleges and universities.—The business side of high-school administration.—The community life in its relationship to high-school administration.—Moral and religious training in the high school.—High-school extension and the continuation school.—The outlook.—"The title of 'High school administration' is used because the purpose has been to discuss the problems of secondary education as they are found to exist in the only distinctively American institution which undertakes to deal with them in a concrete way."—Pref.

Hughes, James L. Teaching to read. New York, A. S. Barnes and company, 1909. 124 p. 12°.

International congress for the development of drawing and art teaching. Report of the American committee, third International congress for the advancement of drawing and art teaching. [Montclair, N. J., The E. Madison co.] 1909. 16 p. 8°.

Interstate school of correspondence, Chicago. Intermediate and grammar methods; a series of practical home studies in pedagogy, by William F. Rocheleau. Associate editors: Charles H. Sylvester, school management, discipline, arithmetic; Edward F. Worst, construction work; Emelia M. Goldsworthy, drawing; Mary Reid Pierce, music. v. 1. Chicago, Interstate school of correspondence [1909] 385 p. 8°.

Jackson, George Leroy. The development of school support in colonial Massachusetts. New York, Teachers college, Columbia university, 1909. 95 p. 8°. (Teachers college, Columbia university, Contributions to education, no. 25)

Johnston, Hugh. Are denominational colleges a necessity? New York, Board of education of the Methodist Episcopal church, 1909. 15 p. 8°.

Jones, Olivia M. Teaching children to study; the group system applied. New York, The Macmillan company, 1909. 193 p. 12°.

Kemp, Ellwood W. An outline of history for the grades. Boston [etc.] Ginn & company [1909] 352 p. 12°.

"Two chief ends have been aimed at: first, to present a plan of work which will, if followed by the teacher, tend to develop in her mind a real sense of history,—of its growth and unity; second, to suggest such material for the use of pupils as will tend to develop in their minds the true historic sense and lift them from grade to grade into ever wider and richer historical views."—Pref.

Kuehnemann, Eugen. Charles W. Eliot, president of Harvard university (May 19, 1869-May 19, 1909). Boston and New York, Houghton Mifflin company, 1909. 85 p. 8°.

This essay was originally written for the Deutsche rundschau of Berlin, and appeared in its May and June numbers as a tribute of Germany to President Eliot on his retirement from office and at the same time to America in the person of her representative educator. The translation is by Dr. A. W. Boesche, instructor in German at Harvard university.

Mackenzie, Millicent. Hegel's educational theory and practice; with an introductory note by J. S. Mackenzie. London, Swan Sonnenschein & co., 1909. xxi, 192 p. 12°.

Maennel, B. Das amerikanische jugendgericht und sein einfluss auf unsere jugendrettung und jugenderziehung. Langensalza, H. Beyer und Söhne, 1909. 34 p. 8°. (Beiträge zur kinderforschung und heilerziehung. Heft 59)

National society of college teachers of education. Observation and practice teaching in college and university departments of education. Papers prepared for discussion at the meetings of the National society of college teachers of education, Auditorium hotel, Chicago, February 23-24, 1909. [Iowa City, Ia., Printed by the C. A. Webber printing company, 1908] 80 p. 8°.

CONTENTS.—Practise work in university departments of education, F. E. Farrington.—Observation in connection with college and university schools or departments of education, G. D. Strayer.—Practise teaching at Brown university, W. B. Jacobs.

New Jersey. Commission on industrial education. Report . . . submitted to the senate and general assembly of the state of New Jersey in accordance with joint resolution no. 11, approved April 14, 1908. Trenton, N. J., MacCrellish & Quigley, state printers, 1909. 177 p. 8°.

Palmer, George Herbert. Self-cultivation in English. Boston, New York [etc.] Houghton Mifflin company [1909] 41 p. 12°. (Riverside educational monographs, ed. by H. Suzzallo)

Parsons, Belle R. Plays and games for indoors and out; rhythmic activities correlated with the studies of the school program. New York, A. S. Barnes & company, 1909. 215 p. 8°.

Pestalozzi, Johann Heinrich. Heinrich Pestalozzi; eine auswahl aus seinen briefen und kleineren schriften, herausgegeben und eingeleitet von Hermann Walsemann. Leipzig und Berlin, B. G. Teubner, 1909. 189 p. 8°.

CONTENTS.—Vorwort.—Pestalozzis leben und wirken: I. Wünsche. II. Briefe von Pestalozzi und Anna Schulthess. III. Tagebuchblätter. IV. Die abendstunde eines einsiedlers. V. Briefe an verschiedene personen. VI. Reden an mein haus. Gedichte. Testament.

Pittsburg. Central board of education. Observations on the schools of Great Britain, Belgium, and Germany by a Committee of Pittsburg teachers, appointed by the Central board of education, made during a tour under the auspices of the National civic federation of the United States. 1908. [Pittsburg, 1908] 62 p. 8°.

Plaisted, Laura L. The early education of children. Oxford, Clarendon press, 1909. 398 p. 12°.

"Its purpose is to present some exposition of principles and some examples of work which may be helpful to the young teacher and to others who, owing to the conditions and circumstances of their own work, have too little opportunity for comparative study of educational practise. Every principle laid down and every method advocated has stood the test of practical work."—Pref.

Rose polytechnic institute, Terre Haute, Ind. Rose polytechnic institute; memorial volume, embracing a history of the institute, a sketch of the founder, together with a biographical dictionary and other matters of interest. Terre Haute, Ind., 1909. 270 p. 8°.

Snyder, Edwin R. The legal status of rural high schools in the United States, with special reference to the methods employed in extending state aid to secondary education in rural communities. New York city, Teachers college, Columbia university, 1909. 225 p. 8°. (Teachers college, Columbia university, Contributions to education, no. 24)

Spiller, Gustav. Report on moral instruction (general and denominational) and on moral training in the schools of Austria, Belgium, the British Empire, China, Denmark, France, Germany, Holland, Hungary, Italy, Japan, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United States; with two introductory essays and an annotated bibliography of about 750 volumes. Issued for the International union of ethical societies. London, Watts & co., 1909. 362 p. 8°.

Stamper, Alva W. A history of the teaching of elementary geometry. [New York, 1909] 163 p. 8°. (Teachers college, Columbia university, Contributions to education, no. 23)

Thwing, Charles F. Education in the Far East. Boston and New York, Houghton Mifflin company, 1909. 277 p. 12°.

Tufts, James H. American college education and life. [An address given before the Section of education at the Baltimore meeting of the American association for the advancement of science. New York, 1909] 17 p. 8°.
Reprinted from Science, n. s. 29: 407-414, March 12, 1909.

Vuyst, Paul de. L'enseignement agricole et ses méthodes. Bruxelles, A. Dewit, 1909. 354 p. 8°.

Williams college. Williams college: the induction of Harry Augustus Garfield, LL.D., into the office of president, October seventh, MDCCCCVIII. [Cambridge, Mass.] Printed at the Riverside press [1909] 127 p. 8°.

Wood, Frances Ann. Earliest years at Vassar, personal recollections. Poughkeepsie, N. Y., The Vassar college press, 1909. 98 p. 12°.

Woodbridge, S. H. Air and the school house. Boston, A. D. Maclachlan. 32 p. 8°.

Ziertmann, Paul. Das amerikanische college und die deutsche oberstufe; eine frage der schulorganisation. [Leipzig, 1909] 31 p. 8°.
Sonderabdruck aus dem Pädagogischen archiv, 51: 225-255, Mai 1909.

VIII

DISCUSSIONS

PRONUNCIATION OF LATIN

The Classical Association of England has been dealing vigorously for some time past with the subject of the pronunciation of the Latin and Greek languages as taught in the English schools. The Board of Education has recently been induced to issue a circular on the pronunciation of Latin which in substance supports the recommendations of the Classical Association. For its general interest to classical teachers in this country, the circular is here given in full as follows:

The serious inconveniences that arise from the want of a common and fixt system of pronouncing Latin in schools are generally admitted. They have in the past gravely affected the efficiency and success of the teaching of Latin. In some cases the system in use was demonstrably erroneous, and in others there was no consistent system at all, or different systems were in use in different forms, with the result of much confusion, much needless labor, and positive encouragement to slovenliness and inaccuracy.

In order to remedy these evils, it is necessary that a uniform system of pronunciation should be adopted thruout the Latin classes in each school, and almost equally necessary that a common system should be adopted in all schools in which Latin is taught.

To effect this object, the Board recommended two years ago that the scheme of reformed pronunciation adopted by the Classical Association and approved by the Philological Societies of Oxford and Cambridge, the Headmasters' Conference, the Incorporated Association of Headmasters, and the Assistant-masters' Association, should be brought into use in all schools recognized by the Board. From returns made by the schools it appears that this system has been generally adopted, and is now in use in all but about five per cent. of the schools in question.

The rules of this system (excluding certain unimportant or debatable points which hardly affect ordinary usage) are set forth below.

If the authorities of any school still prefer to adopt some other system of pronunciation, or to make any modifications in the system here recommended, that system must be clearly explained when the curriculum is submitted to the Board. In no case can the use of any system be sanc-

tioned in which proper attention is not given to quantity; in which, for instance, *păter* is pronounced as *pāter, lĭcet* as *līcet, bŏnus* as *bōnus.* Latin will not be considered to be efficiently taught where quantity is ignored, nor will any teacher be considered qualified to teach Latin who is not sufficiently acquainted with the rules of Latin quantity to read Latin prose and verse correctly.

Special attention should be paid to the teaching of pronunciation in the lower forms. A reasonable discretion may be used in changing the pronunciation of pupils who have already for some time been learning Latin on another system. But it is obvious that a teacher can not use two different pronunciations when teaching two classes or sets of pupils without great trouble and almost certain confusion, and, in view of the fact that a standard pronunciation is likely to become within a few years practically universal, it is very desirable that, even at the cost of some temporary additional effort, pupils should become accustomed to its use as early as possible.

Rules for the pronunciation of Latin

Quantity

In pronunciation the quantities of the vowels must be strictly observed: *e.g., lăbor,* not as English *lābour; mĭnor,* not as English *mīnor; nŏta,* not as English *nōte.* This is essential for the proper appreciation in verse of meter, and in both prose and verse of sound, rhythm, and distinctions of meaning (*e.g., lābor,* I glide, *lăbor,* toil; *lēgo,* I bequeath, *lĕgo,* I pick; *līber,* free, *lĭber,* a book; *sōlum,* only, *sŏlum,* ground).

Vowels

The following is approximately the pronunciation of the vowels:

ā (fātum), as *a* in *fāther,* not as in *plāy.*

ă (răpit), the same sound shortened, as the first *a* in *a*ha.

ē (mēta), as *a* in *fāte,* not as *e* in mēte.

ĕ (frĕta), as *e* in frĕt.

ī (fīdo), as *ee* in f*ee*d, not as *i* in fīne.

ĭ (plĭco), as *i* in fĭt.

ō (nōtus), as *o* in hōme.

ŏ (nŏta), as *o* in nŏt.

ū (tūto), as *oo* in f*oo*l, not as *u* (yoo) in acūte.

ŭ (cŭtis), the same sound shortened, as *u* in f*u*ll, not as *u* (yoo) in acc*u*rate, nor as *u* in sh*u*n.

y only occurs in words borrowed from Greek, and corresponds, not to any vowel-sound ordinarily used in English, but to French *u* or German *ü.*

Diphthongs

The sounds of the diphthongs may be arrived at by running the two component vowel-sounds rapidly together, the second being pronounced lightly. The most important are:

ae (portae)=a͡+e, nearly as *ai* in Is*ai*ah (broadly pronounced), not as *ay* in pl*ā*y.

au (aurum) = a͡+u, nearly as *ou* in h*ou*r, not as *aw* in *aw*ful.

oe (poena) = o͡+e, nearly as *oi* in b*oi*l, not as *ea* in d*ea*n, nor as *ay* in pl*ā*y.

Diphthongs of rare occurrence are ui, eu, ei, which are similarly to be pronounced as u͡+i, e͡+u, e͡+i, or nearly as in English s*wee*t, n*ew*, gr*ey*.

Consonants

c, g, t, s are always hard.

c (cepi, accepi, scio), as *c* in *c*at, *cc* in Mala*cc*a, *sc* in *s*candal, not as in a*c*id, a*cc*ept, fa*sc*inate.

g (gero, agger), as *g* in *g*et and *gg* in ra*gg*ed, not as in *g*in or exa*gg*erate.

t (fortis, fortia), as *t* in native.

s (rosa, res), as *s* in *s*it, thi*s*, not as *s* in ri*s*e.

In accordance with this rule, -ci-, -si-, -ti-, *e.g.*, ocius, sponsio, natio, are never to be pronounced like *-sh-*, as in appre*ci*ate, respon*si*ons, na*ti*on.

i and u consonantal.

i (j), *e.g.*, iacio (jacio), as *y* in *y*ou, not as *j* in *j*am.

u (v), *e.g.*, uolo (volo), practically as *w* in *we*, not as *v* in *v*ery. But the latter pronunciation may be adopted if preferred.

r is always trilled, even in the middle and at the end of words.

When a Latin consonant is doubled, both should be pronounced: *e.g.*, vacca and pullus are to be pronounced vac-ca, pul-lus, as in English boo*k-c*ase, oi*l-l*amp.

CONTRIBUTIONS TO THE HISTORY OF AMERICAN TEACHING

I

Superintendent Greenwood of Kansas City has furnished the following list of words given by Mr. Joseph Dennis, County Superintendent, to about forty teachers in a spelling contest held at Kirksville, Adair County, Mo., in April, 1868. The contest was open to all teachers, and the words were pronounced by the County Superintendent, but not defined. The prizes offered were Webster's *Academic dictionary,* Porter's *Chemistry,* and a small edition of *Tennyson's poems.*

Mr. Greenwood spelled ninety-nine words correctly, his only mistake being in the word kaleidoscope, in which he transposed the *e* and the *i*. A woman teacher spelled ninety-eight words correctly, and a man followed with ninety-seven. Following is the list:

List of Words

1. abacus
2. abalienation
3. abscission
4. acacia
5. acerbity
6. barouche
7. belles-lettres
8. bissextile
9. bronchocele
10. cabriolet
11. calendar
12. caoutchouc
13. cerement
14. coup de grace
15. cuisine
16. dénouement
17. dudgeon
18. eccentricity
19. ecstasy
20. elision
21. esculapian
22. factitious
23. finale
24. fratricidal
25. fugacity
26. fustian
27. gallinaceous
28. gauger
29. geocyclic
30. gerrymander
31. geyser
32. gnarly
33. gneiss
34. groat
35. gyroscope
36. halcyon
37. hautboy
38. heinousness
39. hemorrhage
40. hors de combat
41. hydrargyrum
42. ichneumon
43. idiosyncrasy
44. immersion
45. intercede
46. irascible
47. isthmus
48. jeu d'esprit
49. judiciary
50. jugular
51. kaleidoscope
52. keyed
53. killikinick
54. knaggy
55. knuckling
56. lachrymose
57. lacquer
58. laocoon
59. laryngitis
60. lattice
61. leisurably
62. leprosy
63. liege
64. liquefy
65. lucre
66. macerate
67. mackerel
68. millinery
69. mint-julep
70. minié-ball
71. miscegenation
72. muscle
73. neuralgia
74. nonchalance
75. onerous
76. pachyderm
77. paroxysm
78. pentateuch
79. phthisis
80. pleurisy
81. precipice
82. quintessence
83. quizzer
84. raisin
85. recession
86. regurgitate
87. sacrifice
88. sassafras
89. schist
90. sesterce
91. Sisyphus
92. strychnine
93. Terpsichore
94. tessellation
95. therapeutics
96. tyrannize
97. uxoricide
98. vaccinate
99. vesicle
100. zinky

TEACHING PEACE THRU INSTRUCTION IN AMERICAN HISTORY

To the observer of important world movements today, two antagonistic groups of phenomena present themselves. One has to do with the interests of international peace and good-will; the other with the stupendous preparations for war. Such highly civilized countries as England and Germany, for example, are imposing overwhelming financial burdens upon themselves in order to build up their armies and navies. To such an extent have jealousy, fear, and suspicion seized them that in wild panic they rush to build Dreadnoughts and otherwise increase their fighting strength. The claim is that great armaments are absolutely necessary for the preservation of peace, altho it is plain that such preparation for war invites national bankruptcy. On the other hand, organizations like the Inter-Parliamentary Union, the Hague Conference, and the five hundred peace societies of the world are moulding public opinion in favor of a new international spirit.

Out of this strange situation good is certain to come, for while it is scarcely probable that war between two such great countries as Germany and England will occur, the actual conditions are causing the people to reflect upon the folly of spending untold millions on their armies and navies, and are forcing men to think as they have never thought before about the barbarous method of settling international disputes by the use of brute force. Ideas are growing into ideals and convictions, and these in turn are rapidly finding embodiment in organized action. Important among the organized forces is the American School Peace League, which "aims to secure the coöperation of the educational public of America in the project for promoting international justice and equity."

School superintendents can do much to further the work of developing a peace-loving spirit among school children, and to this end no branch of instruction lends itself so well as does American history. For the United States stands for the grandest experiment of all times in the development of Christian democracy. In teaching history, therefore, less emphasis

should be placed upon wars. Of course they should receive attention, for they have played an important part in racial and national evolution. But the significant things about them —and the only things that should properly have any consideration in the school—are their causes, their results, and the spirit and method in which they were carried on.

For example, slavery was without doubt the underlying cause of the Civil War. Geographic and economic conditions should, therefore, be discust to explain why slavery flourished in the South and not in the North. Then the relation of slavery to state rights and secession should be made plain. It should be understood that Lincoln's great purpose was to save the Union and not to destroy slavery. He saw clearly that secession, carried to an extreme, would result in as many weak, petty countries as there were states federated together in a mighty political family. Furthermore, the federation of states foreshadowed then as it does now the federal nations of the world; our national Congress the congress of the world; and our Supreme Court the permanent international tribunal. These great embodiments of the coöperative spirit in political life have been of the highest value to our own country and have reacted powerfully upon the international sentiment of the world. In laying emphasis, therefore, upon these facts, the school can do much for the cause of international peace.

Only a limited amount of attention should be concentrated upon campaigns and battles, for we are not preparing the pupils for military life, but for useful citizenship in an orderly community.

Much should be made of the destructive effects of war. It disorganizes industry, raises the cost of living, and causes an awful waste of material wealth and human life. Said General Sherman in a report of his Georgia campaign, "I estimate the damage done to the state of Georgia and its military resources at $100,000,000, at least $20,000,000 of which has inured to our advantage, and the remainder is simple waste and destruction." Well did he afterwards declare, "War is hell!"

The drain of war upon the national resources may be em-

phasized by the fact that we have not yet finished paying for our wars. Our pensions have in the past ten years cost an average of more than $140,000,000 annually. In 1908 our taxation for pensions was nearly $154,000,000, while in the same year we paid for the maintenance of the army $111,000,000, and for the navy $119,000,000, a grand total of $384,000,000 credited to the army and navy account. Nearly two-thirds of our entire revenue are expended upon wars past and anticipated. Moreover, this material loss suggests untold suffering, which we must take into account in any attempt to measure the disastrous effects of war. For instance, if we count those who were slain on the battlefield in the Civil War, and those who died from wounds, disease, and hardship in wretched prisons, the loss of men—many of them the very flower of the nation's young manhood—was equal to seven hundred a day during the four years of the war. This wholesale destruction of the moral wealth of the country can not be estimated. Emphasis upon such facts by the teacher of American history will make them eloquent arguments in favor of peace.

When we learn to keep in mind the right perspective in teaching the national biography of such a peace-loving people as we have been from the beginning of our history, we shall devote to the arts of peace and to the social and industrial conditions of life that large measure of attention which is their due. In so doing, we shall also bring out the fact that our history is a part of world history and that we have a racial inheritance to which people of various lands and ages have made invaluable contributions. We shall make it clear that for much that we hold dear in our civilization today, we are indebted to the Hebrews, the Greeks, the Romans, and to various countries of Medieval and Modern Europe. We have not lived in isolation; no country ever can. In all phases of our history, our national life has been closely related with the life of European countries and with the rest of the world. And this is as it should be, for no nation can render its appropriate service to humanity except by harmoniously coöperating with other nations,—a fact which

was never so self-evident as in this age of steam and electricity.

One reason, doubtless, why so much stress has been laid upon wars is that the heroic element is called into action on the battlefield. There is often a picturesque and colorful quality in the subject-matter that strongly appeals to boys and girls. This heroic quality as exhibited in campaigns and battles is worthy of emphasis. But heroism is quite as vividly illustrated by men of peace in the performance of social duties. Even if we devote less of the time and strength of the school to the destructive forces of war, and more to the constructive arts of peace, we shall find that there is no history more fascinating or more dramatic for the American boy and girl than our own. To illustrate my meaning, let me mention only a few facts which suggest the character of the peaceful evolution of American institutions. In the settlement of America, European life entered the new world, received large modifications from physical influences, and then reacted upon the social and political life of the old world. When the settler reached America he was European in dress, tools, habits of thought, and ways of doing things. But these he rapidly changed in adapting himself to the trying conditions of pioneer life. In the beginning, therefore, the wilderness mastered the man; but in the end the man mastered the wilderness and brought under his control a continent. The result was a new type, the American. This process of Americanization evolved many dramatic incidents and many heroic deeds.

Now it so happened that the early colonists were largely Anglo-Saxons, having the Anglo-Saxon spirit or impulse with its love of fair play and its keen sense of individual freedom. The political ideas and ideals which these colonists planted here were rapidly modified under the democratizing influence of frontier surroundings; yet the Anglo-Saxon spirit, represented by the early New England settlers, has largely dominated American thought and purpose from 1620 down to the present time. In other words, the Anglo-Saxon spirit on the one hand, and the movement westward with its constant

touch with pioneer conditions on the other, largely explain the American type in its social development.

In the great movement from the Atlantic to the Pacific, there has been a continual advance of the frontier, and in every area of this advance a return to primitive conditions, and also a new social development. In this development—which has been much accelerated because it has taken place for the most part in times of peace—the five phases of institutional life as represented by the family, the church, the school, the state, and industry, are well illustrated. Each of these should receive its due share of attention. Hitherto we have over-emphasized political history, altho the state is the most complex of all the great institutions. In this over-emphasis upon the political side of life. we have tried to teach what the pupil is not ready to understand and failed to give a proper consideration of things which he can understand and which are more important for him to know.

These things, it should be emphatically noted, have to do with the constructive arts of peace. In a very elementary way, for example, it can be shown how the simple old-time school in the rude log hut has become the complex educational system of today, and how the hand industry of the early colonial times has grown into the factory system of our modern city.

In dealing with the industries, the inter-dependence of men and of communities should be demonstrated, and the need of coöperation between various countries in the interests of the well-being of all should be strongly set forth. In primitive industry the individual works alone; in modern industry he works in combination with others. In a very emphatic way the modern factory system illustrates the spirit of coöperation. Coöperation and not competition has been the law of material growth and prosperity.

The westward movement has been closely identified with the great tide of European immigration into this country. In sending their thousands and hundred thousands many countries have contributed their thought and their ideals, and all have been helpful. We are a cosmopolitan people, and we

owe much of what we are to what the immigrants, first and last, have brought from their various European homes.

In connecting our national life with the life and work of the world, we shall fail of our duty to the young if we do not show clearly the frank and straightforward character of American diplomacy. We have been honest in our diplomatic methods; we have been sincere in our diplomatic relations. Moreover, in impressing the great ideal of peace and good-will, we need to inspire our pupils with the thought that nations can not truly and nobly live without a due consideration for all classes and countries. It has been well said that our supreme business as a people is not the frightening of rivals but the making of friends. To put this ideal into practise, we must live up to the motto that justice and righteousness are the keystone of national greatness. Thus shall we meet the moral responsibility that is ours, and in a very real sense occupy as a people a position of leadership among the nations of the earth.

WILBUR F. GORDY

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TENDENCIES IN COLLEGE DEPARTMENTS OF EDUCATION

The data from which the following conclusions are deduced have been gathered from reading carefully the announcements of courses in education. Eighty catalogs have been systematically gone thru for this purpose. The institutions whose work in education is here reported include six sectionally representative state universities and two endowed universities. The ten catalogs of each, for 1897 to 1907, furnish statements of policy and plans in operation which in all likelihood are most influential in standardizing this developing feature of combined academic and professional study.

In 1897 these eight institutions offered in all 85 courses, in 1907 182 courses; in 1897 there were 14 instructors, in 1907 47; in 1897 work of graduate grade was offered in 27 courses, 1907, in 64 (approximately); in 1897 the instructor staff included 4 Ph.D. men, in 1907 28; in 1897 one-half of

these departments were subordinate to or minor divisions of the department of philosophy; in 1907 all were independent of the departments of philosophy, and of at least coördinate rank with any other department in the Arts Faculty. In 1897 there was no single course common to all the eight departments, not even the so-called *methodology* course, altho the history and the principles of education, administration, and methods prevail in most of them, and some kind of psychology is offered. In this year there is little sign of agreement upon the fundamentals which shall constitute an introduction to the scientific and professional study of education. In 1907 there are approximately ten courses, embracing topics which in some way are dealt with in each of the institutions named. In 1897 progressively planned courses in single distinctive phases of education are not in evidence, in 1907 these abound. In 1907 all have chosen "Education" rather than Pedagogy, or Science and Art of Teaching, etc., as a catalog name to embrace the range of their activities.

As there are now 269 educational departments in colleges and universities, and 264 in fairly reputable normal schools, as scarcely 15 per cent. of the 500,000 teachers in the field have enjoyed even the advantage of this available scant resource for professional outlook, as this total of 533 departments of education will likely be doubled in another decade, or at least will double their equipment and efficiency, as influential leaders in the field of secondary education will be, in increasing proportion, recruited from the younger men who will have had some professional training, and as the above 15 per cent. of teachers in the schools will probably then include as many more, the question of wise coöperation in directing these pervasive movements and tendencies assumes large proportions.

The following is a dogmatic summary of the above survey. Each item in the count requires elaboration and most of them call for provisos. The whole is, however, I believe, impressionalistically true.

(1) These departments are gradually becoming independent of any set philosophical system, and (partly, at least, due

to the importunity of the large demand and the inadequate preparation of their students) stressing training in pure philosophy less.

(2) In these ten years of progressive development no line of work undertaken has been precipitously dropt, indicating the genuineness of the work and the social demand which called it into existence. Exception should here be made of some departments which have laid less specific stress upon elementary education as such.

(3) In emancipation from the dictation of other departments it is rapidly organizing its own body of newly collected and pertinent facts, following the history of all newly born departments of knowledge. Educational history, educational law, educational administration, educational psychology, sociology, and philosophy, are coming to stand upon a growing vigorous fresh literature and science of their own.

(4) Some of these departments seem to show, not abortive but over-balanced tendencies in some of these lines; for example, in the under or over-emphasis on psychological aspects.

(5) All show the research spirit, various scattered explorations being in evidence in the fairly numerous seminary courses offered.

(6) They are perhaps unique in their efforts to adapt themselves to present social conditions. Contemporary literature, problems, and movements furnish material for a popular course.

(7) The professional ranks are gradually being filled with Ph.D. men who welcome research. As yet, however, the Ph.D. material seems to be drawn chiefly from other graduate departments.

(8) The disposition exists to utilize specialists from given fields in the special methods, thus bringing over into their faculties leading men in other lines.

(9) There is some general evidence that the elective system is not at present working so as to serve to furnish for the intending student of education the desirable uniform academic grounding in psychological, biological, historical, sociological, philosophical, and literary work. Students are far

from being uniformly equipped with simple fundamental concepts which would facilitate and expedite their work in educational theory. For the above reason theoretical work in education is unbalanced, unsatisfactory, and needlessly difficult.

(10) It is, hence, desirable that there should be more official study and more specific recommendation of the *usual special combinations* justified by the actual demand in the high school field. This would enable embryo teachers to so plan their undergraduate work as to provide systematically for more than their specific preparation in a chosen subject.

(11) There are relatively a good number of one hour courses, indicating various profitable but scantily worked fields.

(12) Again there is too much overlapping everywhere. showing certainly lack of a working organization of instruction.

(13) The useless confusion of nomenclature indicates how difficult and how unsatisfactory it is to arrange for credits from sister institutions.

(14) The great increase in the teaching staff and in degree men makes its future status and progressive evolution secure.

(15) The discarding of the name pedagogy, and the general adoption of the term education, it is to be hoped, indicates that healthy condition where, in scientific and scholarly directions, its reach exceeds not too far its grasp.

(16) There are numerous evidences observable also that Herbartianism in educational psychology, the chemistry (or alchemy?) of ideas, is being discarded in favor of a more functional or genetic view of mind.

(17) There is little sign of appreciation of the productiveness of psycho-physics and psychometry. (No suggestion of relief or lament is here implied.)

(18) Most courses are fortunately still in the stage of transition. There is a great need of coöperation in standardizing terminology, and of consensus as to what shall be strictly academic and introductory courses, on a par with history or

Latin, etc., open and useful for any academic student, whatever his future profession shall be.

(19) If the professional study of education is to affect teaching and broaden the professional horizon in all ranks from elementary school to college, in the minds of some the opportunity has come and the time is ripe to begin to work up a suitable course such that in time it would be recognized as genuinely useful for all candidates for the master's or doctor's degree who may look forward to teaching as a life work. This is a logical issue and a legitimate aspiration, however remote may be its eventuation.

(20) Finally, with considerably more assurance, we may affirm that, in this formative stage of development, educational departments may well attempt, from their peculiarly intimate relation to the arts faculty, to the graduate schools, and to the profession of teaching, to formulate a policy and keep rigorously to it, which may look toward a better, higher, broader, and more humane standard for candidates who aspire to the Ph.D. degree in their own line of work at least.

The whole problem of observation and practise teaching seems to be a sort of swamping side issue about which much must be learned from the practical experiences of Germany and France, and even from the universities of Glasgow, Manchester, Toronto, and others. Even if the body of school children of the different states can be protected from that at present necessary year of being experimented upon by absolutely raw beginning teachers, the considerable outlay necessary to provide state universities with facilities for practise teaching under expert guidance and sympathetic advice, would seem easily to justify the public investment. This *face value* estimate is entirely aside from the deeper conception of the practise school as the professional teacher's laboratory for the exemplification, verification, and discovery of sound educational principles.

Charles Hughes Johnston

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THE RACE FACTOR IN EDUCATION

A pertinent query that arises in the mind of one observing educational work in a cosmopolitan school-population is—What are the reactions of these children, of such diverse nationalities, to the school curriculum? Is the same curriculum equally good for all of them? Do the children of one race progress as rapidly thru this fixt curriculum as do those of another? In brief—of what importance, in education, is this race factor?

Before this question can be even partially answered several important qualifications must be understood. In the first place, our school curriculum is essentially and predominatingly Anglo-Saxon. Its ideas and ideals, its subject-matter and expression-forms, are those of the English people. So, at the very outset, we find this great difference between the child whose home is English, and the child whose home is, for example, Chinese. The school work of the English child continues and supplements the home life of that child. The home and the school unite in giving a comparatively unbroken training; the language, the general atmosphere, the ideals, of the one are also those of the other. The child is "at home" in school. With the Chinese child, however, a very different condition exists. The language of the home is not the language of the school; the habits and customs, the general atmosphere, the ideals, of the school are not those of the home. The school is a strange place and the statements that "teacher" makes are not necessarily the same as those that the father and mother make. The child has two schools, which are unconsciously more or less antagonistic. Even under the best of educational policies, the school tends to somewhat alienate the child from the home, and this is greatest when the home is of a race-character entirely different from that of the school.

Secondly, the language of the school is English. Not only must the Chinese child comprehend and master the ideas and ideals of a foreign people, but he must do so in a foreign language. The handicap is double. Not only the spirit of the institution, but the form of the schooling, is foreign. The

Chinese boy, who speaks his own language at all times outside of school hours, must keep pace with the American lad, who speaks only the language of the school.

These conditions existing, one might easily conclude that white children progress much more rapidly in their studies than those of other nationalities. Familiar with the vernacular, accustomed to the general ideas of the school, for they coincide with those of his home, the white child should uniformly surpass his schoolmates of other nations, who labor under this double drawback.

To our surprize, we find that such is by no means the case. Investigation reveals that the white boy does not mentally outstrip, in his school work, the boys of other races. Indeed, the converse is very frequent, and we find that the best scholars in any grade are frequently of other races.

Our analysis of this unexpected condition shows us that there is combined with the "superior mental powers" of the white school child, a very frequent lack of persistent effort; and that the white child is self-handicapped. Faithful diligence and sincere effort give to the other race that training and comprehension that the American child frequently fails to secure.

So the children—American, Hawaiian, Chinese, Japanese, Portuguese, Korean, etc.—in any given grade, progress generally together, and the race factor, so far as mental aptitude is concerned, is negligible.

It is claimed by some, who support their statements with much proof, that this popular belief in the scholastic handicap of non-white races is untrue. It is claimed by such that the differences between the home and the school, just enumerated, have no appreciable effect upon school work. The child is not handicapped in the mode, or in the number of modes of expression. The conclusion from these statements is, however, the same as that previously given, namely,—that the children of all nationalities progress with general uniformity of promotion, thru the grades.

If we deny this statement—if we claim that the children of different races have markedly different mental ability—then

we must confess that the school system which forces these children to do the same amount of work in the same length of time is radically wrong.

If the Chinese and the Japanese can progress at a markedly faster rate than the white, or the Hawaiian, then it is not fair to put them all in the same room and grade, some restrained, some lagging.

Pushing the assertion of racial mental difference to its logical conclusion we arrive at the segregation of each race in its own school, moving at its own racial rate of progress. The conditions become those now actually in practise in certain portions of the South, where the negro goes to one school, and the white to another.

An interesting problem, suggested by the above considerations, is this—At what age, in an individual, do the characteristic mental traits of that individual's race first appear? The answer becomes a determinant of considerable importance in education.

The general super-education of children is notorious—we have been training juvenile minds in adult terms—an unwise hothouse system that is slowly being replaced by the motor-activity education. The boy of twelve represents the man of a thousand years ago, and his training should be correspondingly primitive and physical. Too commonly he is trained as if he were in full possession of the contemporaneous race-mind, into which heritage he does not really come until the middle period of his adolescence.

The consensus of opinion is that racial mental differences do not appear as distinctive until adolescence, and are thus, from the viewpoint of the elementary school, negligible.

The race factor in elementary education, therefore, becomes a matter of minor importance, and the school in which varied races progress with general uniformity thru the grades —variations being individual and not racial—amply justifies itself. Indeed, its pupils, from their very diversity, learn unconsciously a broad humanitarianism, surmounting race prejudice, and making for ideal citizenship.

VAUGHAN MCCAUGHEY

HONOLULU, T. H.

IX

REVIEWS

Arithmetical abilities and some factors determining them—CLIFF WINFIELD STONE, Ph.D., Columbia University Contributions to Education: Teachers College Series, No. 19, 1908, 101 p. $1.00.

It seems to the writer that this is a study of the type that is so much needed in the field of education at the present time. A current writer has very forcefully put it in this way,—"It is quite significant that those who are engaged in training the young, whether they be teachers or parents, seem to be much more interested in concrete data pertaining to child life than in logical analysis of ends, values, and processes in education." One does not care to listen to a theoretical point of view as such; but when an investigator states that he has actually tested under standard conditions many hundreds of children with reference to a certain trait or ability, and that he has reached certain definite conclusions, we are all ready to listen to him. Professor Stone's contribution is such a piece of work, and as such it commends itself to city superintendents and arithmetic teachers especially, but is also suggestive to all investigators in other fields, who are desirous of gaining statistical information of value.

He states in the beginning that "the central purpose of this study is to make one more contribution to exact knowledge of the relation between distinctive educational procedures and the resulting products." His problem is to discover arithmetical abilities of 6A pupils, and to see what relation this ability has to the educational procedure and method in the particular school tested. For his data he investigated 26 school systems, and not less than 100 children in each system. The number of cases is thus large enough, and they are sufficiently well distributed over the country in different systems, to insure validity as to conclusions. The tests were

all personally conducted by the author, and great care was used to have conditions uniform.

Two types of tests were made, one upon the fundamental rules, and another upon reasoning ability. The tests seem to be perfectly fair, and were arranged to suit the average ability of students in the 6A grade of the systems tested.

Professor Stone finds that in the 26 systems there is a great variability among the systems themselves as to requirements, methods, point of view in training, etc., and likewise that there is great variability among the pupils, both as to the amount accomplished, and the accuracy of their work. He finds that in different systems there are different requirements as to time spent in the study of arithmetic, and at present there seems to be no standard upon which different systems are working. He also finds that there appears to be no correlation between the amount of time spent upon the subject and the efficiency of the pupils to perform the tests herein stated. Length of time devoted to the study does not appear to be a guarantee of ability. In this connection he offers some very practical suggestions to superintendents (see p. 69) for deciding how much time should be devoted to the subject of arithmetic.

The author reaches the conclusion that some of the courses of study are functioning in an excellent manner in producing students who are efficient in the fundamentals, and who have also developed reasoning ability. He gives brief extracts from the courses of extreme degree of excellence, and suggests that a study should be made reproducing large numbers of courses of study in American schools, having their relative excellences indicated. Such means of standardizing courses of study and systems of education are much needed at the present time.

This excellent study of Professor Stone provides the educational world with the means of beginning to standardize its products, and to see the relation of the products to the course of study and the method of instruction. The foundations of arithmetic should be made the common possession of all children before they reach the compulsory education

limit. Any one can learn how far his pupils have progressed in this respect by measuring their abilities according to Professor Stone's tests. These tests are given in the book and can be reprinted on individual slips for use, or they may be secured from Professor Stone at a nominal cost. The method of the study is given fully in Part I, with the exception of the scoring of the fundamentals; and Part II gives data by which a city superintendent may compare the abilities of his pupils with those of 26 representative systems.

It seems to the writer that this little work should appeal especially to the superintendent who is wide awake to the standardization of his grade work in any field. The method employed may not be confined to arithmetic in the 6A grade, but to any grade in any subject. If many such studies were prosecuted in American schools, it would not be long till we would reach something definite in the teaching process, and the products of education could be accurately told from the educational procedure and the method employed. It is to be hoped that many such studies may soon appear, bearing the same stamp of scientific treatment for other fields, which Professor Stone has so carefully worked out for arithmetic.

ELMER E. JONES

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Social education—By COLIN ALEXANDER SCOTT. Boston: Ginn & Company, 1908. xi+300 p. $1.25.

This book is written from the point of view that the schools should train the young for useful living in a social democracy. But according to Dr. Scott they do not. On the contrary, as at present organized, they are weak, he says, "in trying to prepare future members of the social order in the medium in which the conditions of the social spirit are eminently lacking." As a remedy for this weakness, the author proposes to add to the present curriculum subject-matter selected by the pupils and work carried on by them in groups which they themselves organize. To make this plan effective, the teacher must study the social action of class aims and ideals, and also the leadership and organization involved in the

activities of the pupils. Dr. Scott sets forth the following advantages of this self-organized group work: It develops resourcefulness, initiative and true leadership, all of which are social powers of a high order; it stimulates democratic responsibility to one's own ideals and to those of others on the same social level; it makes an organic connection with the life interests and activities of the pupils; and it brings about a self-organized contact between the individual member of the class and his fellows. In illustrating his theory of the school as a social organism, the author explains in interesting detail the working of the school at Abbotsholm, England, the George Junior Republic, and the Dewey School.

In all this discussion of the school as a social institution, Dr. Scott shows himself to be a master of his subject. His account of the school as a place where social forces are ever active is based on wide observation of various kinds of schools from the kindergarten to the college. As a result of such observation, Dr. Scott attempts to show how his theory may be applied to such culture themes as arithmetic, science, reading, language, literature, fine art, manual training, and industrial education. In so doing, he offers invaluable suggestions as to ways and means of socializing the pupils and of preparing them for intelligent and useful coöperation with their fellows in adult community life.

The experiences which he recounts will to many seem fragmentary and insufficient; but they can not fail to prove stimulating and helpful to all thoughtful teachers. As Dr. Scott wisely remarks, "It is a point of view or method of thinking rather than a completed system of thought" which he presents. The school is not an aggregation of individual units where every pupil lives in isolation from his fellows; but it is, or should be made, a coherent social body, representing definite social forces and working under fixt social laws.

Altho the plan which the author proposes may seem to many impractical, yet it can not fail to help the teacher to work out the educational problem with reference to the pupil's point of view rather than to the subject-matter organized for

him by adult scholarship. The school should not require the pupil to devote his energy wholly to memorizing ready-made facts and to acquiring habits of industry and obedience. For quite as valuable as any of these is the development of a truly social spirit which is just as ready to follow as to lead, and which is fundamental to the successful working of democratic institutions. I believe Dr. Scott is right when he suggests that the only hope for a democracy like ours is the extension of social education.

There can be no question, then, that the movement which he discusses with so much ability and eloquence is of the first importance. The school should be so organized as to produce that rational coöperative spirit which is necessary for the safe-guarding of justice, liberty, and equality of opportunity for all. Of course it is difficult to apply in practise the author's lofty ideals, but in emphasizing the need of social education and in helping teachers to look at the school from a social point of view, Dr. Scott has performed a patriotic service. Illuminating as it does the problem of socializing pupil activities in school life, *Social education* deserves a wide reading by superintendents, principals, and teachers.

WILBUR F. GORDY

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A textbook of experimental psychology—By CHARLES S. MYERS, Lecturer in Experimental Psychology in the University of Cambridge and Professor of Psychology in King's College, University of London. New York: Longmans, Green & Co., 1909. xvi+432 p. $2.40 net.

Here we have a textbook of a sort that has long been needed. We have had a wide choice of introductions to general psychology, and a considerable variety of laboratory manuals, but no book, of an elementary character, which set out to tell the results as well as the methods of experimental psychology. The introductory textbooks have taken scant notice of experimental work, and the laboratory manuals have treated of methods rather than of results. We have needed a work which should show something of what experiment has accomplished—a book on the lines of the usual

text in other sciences—and now, thanks to Dr. Myers, we have one. Still more, we have a good one, written by a psychologist who knows the subject at first hand, who is judicious in his choice of material, and duly critical in his use of it.

The book is not free from faults, in either matter or presentation. The author expresses regret that exigencies of space have compelled the omission of many topics, such as animal and child psychology. Other topics of interest which might well have received fuller recognition are reading, eye movements, and the effects of practise. The treatment is fuller on the side of sensation and perception than on the side of the higher intellectual processes. Yet the disproportion between the two sides is not nearly so great here as in many treatments of psychology, and, on the whole, the ground has been covered as well as could be expected. As to the manner of presentation, the main criticism is that the book makes rather stiff reading. The reviewer has tried it on college students of experimental psychology, and found it rather severe for them. Its difficulty arises mainly from condensation. The results of quite an extraordinary number of researches are reported in this relatively small volume, and the author's skill in succinct and accurate presentation of the main facts is by no means slight; but a little more elaboration of the meaning, here and there, would certainly have aided the reader's progress. In addition to this matter of condensation, there are a number of passages which are carelessly and obscurely exprest. These difficulties are however by no means sufficient to unfit the book for use by classes beginning experimental work, or by the educated reader who is desirous of gaining a knowledge of the aims and accomplishment of experimental psychology.

It would be impossible to give, in the brief compass of a review, any adequate account of the contents of the book. It is distinctly not a treatment of systematic psychology, some knowledge of which is, indeed, presupposed in the reader. The author does not lose himself in the discussion of general problems, nor has he pet theories to exploit. His treatment

is admirably objective. His method can be judged, perhaps, from an outline of the two chapters which he devotes to memory. He brings together under this head the work which generally passes under the names of "imagery" and "association," as well as what are usually classed as experiments in memory. His treatment of imagery and association is decidedly brief. He then proceeds to an analysis of the different methods which are employed in experiments on memorizing and on retention, and follows this up with a statement of about twenty-five different matters in memory that have been investigated. In about ten of these twenty-five instances, he describes the original experiment, tho not in much detail, and sometimes gives a sample of the numerical results. One is surprized—if one has not followed the recent progress of work on memory—to see how much has really been discovered regarding this function.

The book may be said to consist of three parts. The main text consists of about 275 pages. In addition, the text contains, in many chapters, bracketed paragraphs, which are to be omitted on first reading, and which add up to about sixty pages. An appendix of eighty pages is devoted to laboratory directions for 155 experiments. These are not described in great detail, for the author recognizes that each teacher is likely to have his own preferences as to the special methods to be used in a given line of experiment.

The work is especially welcome as an index of the good start which experimental psychology has at last made in England. It may confidently be predicted that it will be found extremely serviceable in America as well.

R. S. Woodworth

Columbia University

Autobiography—By John Stuart Mill. New York: Longmans, Green & Co., 1908. 191 p. 50 cents.

It is a distinct satisfaction to see a well-printed and cheap edition of this genuine English classic. It has been customary to poke fun at John Stuart Mill and his father because of the amazing precocity of the child, and what appears as the extraordinary pedantry of the parent; but nevertheless few mod-

ern lives are better worth reading about than that of Mr. Mill. He tells his own story of his mental development with singular clearness, frankness, and charm. In these pages one reads the story of nineteenth-century English radicalism, growing swiftly in the friendly soil of philosophic and economic literature, and in the presence of stirring social and political problems. No well-read man or woman in the English-speaking world is unfamiliar—or at least ought to be unfamiliar—with Mill's *Autobiography*. We gladly call attention to this new and attractive edition.

The land of promise: an account of the material and spiritual unity of America.—By RICHARD DEBARRY. New York: Longmans, Green & Co., 1908. 311 p. $1.50.

Of making books upon America, there is literally no end. The writer of this book is apparently an English clergyman who first visited America in search of a climate favorable to his health. Whatever his purpose, he used his opportunities to good advantage. His generalizations are much sounder than those usually found in books of this type, and altho the writer was over-imprest by certain emphatic, but not very profound or representative, personalities, yet on the whole he saw straight and well. It is particularly to be noted that he did not get his view of American life and society in the usual formal ways. He lookt wisely and well in many directions and he shrewdly divined the true meaning of not a few movements and personalities. The book is agreeably written, and well worth while.

The first two numbers in the series entitled Riverside Educational Monographs are exceedingly attractive. The series is edited by Professor Suzzallo of Columbia University. The first issue is *Emerson on education,* and the second is Fiske's *Meaning of infancy*. The selection of these two distinctively leading contributions to the American literature of education gives the series a noteworthy distinction at the outset. Professor Suzzallo's introductions are helpful and dignified.

(Boston: Houghton Mifflin Co., 1909. 76 p.; 45 p. 35c. each.)

The warm reception that has been given to the textbook on economics by Professor Seager of Columbia University, makes almost certain that his new *Briefer course in economics* will be found acceptable by high school and college teachers. The *Briefer course* contains some material not found in the larger work, and the bibliographical material is full and useful. (New York: Henry Holt & Co., 1909. 476 p. $1.75.)

We are not particularly imprest with the value of *History of common school education* by Lewis F. Anderson of the State Normal School at Marquette, Mich. The study of the history of education is of extraordinary valuelessness unless it is treated from the standpoint of *Culturgeschichte*. There is nothing of this in Mr. Anderson's book, and the literary form, or rather the lack of it, is not agreeable. (New York: Henry Holt & Co., 1909. 308 p. $1.25.)

After a few years it is not likely that pragmatism will have any other than a purely historical interest, but just now while its advocates are active and insistent, there ought to be a large body of readers to profit by Professor Pratt's interesting book entitled *What is pragmatism?* The book contains a number of shrewd critical observations and its style is enjoyable. (New York: The Macmillan Co., 1909. 256 p. $1.25.)

The latest addition to the Macmillan Pocket Classics is a well printed edition of four books of *Knickerbocker's History of New York*. The editor is Professor Greenlaw of Adelphi College. (New York: The Macmillan Co., 1909. 288 p. 25c.)

A delightfully printed edition of Marlowe's *Dr. Faustus* comes from the Sturgis & Walton Company of New York. (78 p. 45c.)

Famous poems explained is the title of a book, the very type and conception of which are deterrent. Famous poems ought not to be "explained." (New York: Hinds, Noble & Eldridge, 1909. 236 p. $1.)

Mr. W. L. Courtney, well known as philosophical writer and editor, has made an undoubted success of his *Literary*

Man's Bible. The present edition is the fourth to appear in a little more than a year. This fact bears testimony to the appreciation with which the book has been received. Mr. Courtney's work is scholarly and judicious in the extreme, and his selections from the Bible, as well as his classification of them and his form of printing, are admirable and most helpful. This is the sort of book that ought to be read in the American secondary schools under the terms of the new uniform college entrance requirements in English. (New York: Thomas Y. Crowell & Co., 1909. 414 p. $1.25.)

L'Istruzione popolare nelli Stati Pontifici (1824-1870) is a careful and thoro-going piece of historical work which deals with a subject-matter almost unknown in the United States. The author is E. Formiggini-Santamaria. He has traced with care the conditions of the Italian schools in the Papal states during the period immediately preceding the political unification of Italy. His book is indispensable to a full understanding of this period. (Bologna-Modena: A. F. Formiggini, 1909. 290 p. 6L.)

A useful but rather elementary book, entitled *The elements of hygiene for schools,* has been compiled by Miss Isabel McIsaac, formerly Superintendent of the Illinois Training School for Nurses. Teachers will be more likely to find this book useful than students. (New York: The Macmillan Co., 1909. 172 p. 60c.)

Book IV of the Gulick Hygiene Series is entitled *The body at work,* by Frances G. Jewett. It, too, is very elementary, and is apparently intended for students in the upper grades of elementary schools and in high schools. Boston: Ginn & Company, 1909. 246 p. 50c.)

R. H. Bell, in a volume entitled *Changing values of English speech,* has brought together a number of more or less connected essays on words and their uses. His material is familiar enough to scholars, and is attractively presented. (New York: Hinds, Noble & Eldredge, 1909. 302 p. $1.25.)

In *Misery and its causes,* Professor Edward T. Devine of Columbia University, brings together in impressive fashion

a statement of the grounds on which the philanthropic work of today really rests. Dr. Devine is the first American authority on this subject, and we confidently commend his admirable book to those who wish to be good intelligent citizens. (New York: The Macmillan Co., 1909. 274 p. $1.00.)

Mr. Arthur O. Norton of Harvard University has done a helpful and useful work in his *Readings in the history of education: mediaeval universities.* Mr. Norton has applied to this field of study the method which has become familiar in every department of historical teaching. Students of the history of education will find here first-hand material from which to gain a knowledge of mediæval university conditions. The book is not only good in itself, but is a good example of a good type. (Cambridge, Mass.: Published by Harvard University, 1909. 152 p. $1.)

Dr. Kuehnemann of the University of Breslau, who has been for two years at Harvard University as German exchange professor, has written for the *Deutsche Rundschau* a glowing panegyric on President Eliot and his work, which has been translated into English and published in an attractive volume. (Boston: Houghton Mifflin Co., 1909. 85 p. $1.00.)

It takes some courage in these days to publish a volume of verse, and we are glad to find in *Galenstock,* by William Moore, not a few lines of more than ordinary sweetness and light. (London: Kegan Paul, Trench, Trübner & Co., 1909. 115 p. 3s. 6d.)

A school algebra, by W. E. Paterson, indicates very well the difference between the English and American methods of teaching this subject. We should think it would be useful to bring such a book to the attention of American students at least as an alternative to their usual tests. (Oxford: Clarendon Press, 1909. 604+lxvii p. 4s.)

The very necessary and always very difficult subject of *The syntax of the French verb* is treated clearly in a little book by Edward C. Armstrong. The attentive teacher will welcome the helpful typography of this attractive book. (New York: Henry Holt & Co., 1909. 192 p. 90c.)

Under the title *Progress of education in India, 1902-1907,* H. W. Orange, Director General of Education in India, sets out in two handsome volumes all facts, both general and statistical, that are connected with this great movement. Nowhere are the English administrative system and skill better exemplified than in the government of India. The stupendous task there undertaken may be, in some slight degree, understood by a careful reader of this invaluable report. (Calcutta: Government Printing Office, 1909. 342, 168 p. and maps. 8s. 3d.)

A second volume of *Readings in modern European history,* by Professors Robinson and Beard of Columbia University, deals with the period following the Congress of Vienna. Contemporary forms of government in France, Italy and Germany, are traced with especial care as are some of the main steps in the development of the modern industrial system. An interesting chapter is devoted to the Turkish Empire, and another to the expansion of Europe and its relations with other parts of the world. The book is the best of its type that has as yet come to our notice. (Boston: Ginn & Co., 1909. 541 p. $1.75.)

We welcome various editions for school use of literary selections from the Bible, and we hope now that the Bible has been definitely recognized as a book which may be read by secondary school students preparing for college that textbooks of this type will increase in number and value. *Old Testament narratives,* by Professor Nettleton of Yale, is very well done. (New York: Henry Holt & Co., 1909. 294 p. 60c.)

Professor Witkowski of the University of Leipsic is the author of an admirable little book entitled *German drama of the nineteenth century,* of which Professor Horning of the University of Toronto has made an authorized English translation. Students of modern literature, who wish in small compass a critical survey of the German drama of the last hundred years, will find it here. (New York: Henry Holt & Co., 1909. 230 p. $1.00.)

Recitations for assembly and classroom, by Miss Anna T. O'Neill, is a book of familiar type that has a very considerable usefulness. The author has brought together a large number of familiar selections from English poetry and some capital prose. (New York: The Macmillan Co., 1909. 454 p. $1.10.)

It is not quite clear what possible purpose can be served by *ABC of philosophy,* of which Grace F. Landsberg is the author. It is more or less of a catalog *raisonnée,* and nothing more. (New York: R. F. Fenno & Co., 1909. 147 p. $1.00.)

An attractive title is *Teaching children to study,* by three New York public school teachers. Nothing is more generally neglected in education than this. Most teachers confine themselves to setting tasks and then awaiting the results of the pupils' activity, or the contrary. This book will be found very useful by thoughtful teachers in elementary schools. (New York: The Macmillan Co., 1909. 193 p. 80c.)

Principal Sir Oliver Lodge of the University of Birmingham is an indefatigable writer. On *The ether of space* he has done the sort of service that Huxley and Tyndall used to do a generation ago. Here in a few concise and well-ordered pages, he sets forth in understandable language all that is now known and believed regarding the ether. The book contains necessarily some mathematics, but not too much. It may be unreservedly commended. (New York: Harper & Brothers, 1909. 170 p. $1.00.)

X

NOTES AND NEWS

The Denver Meeting of the National Education Association

The second Denver meeting of the National Education Association has come and gone. Many trusted and valued leaders who were at Denver in 1895 were missing in 1909. Most of them had past over in the interval to the great majority; a few, like Dr. Harris, were prevented by ill health from making the long journey to the foot of the Rocky Mountains. The attendance was fairly satisfactory, judging by the standard set during the past few years, but the registered enrollment was most disappointing. From such reports as have been published, it appears that only about 3,000 of all those who attended the Denver meeting from points outside of Colorado took occasion to register and to pay their membership fee in the Association. This is an ominous and disappointing fact. Now that it is no longer possible to collect the membership fee as part of the price of the railroad ticket to the place of meeting, the Association must depend upon the loyalty and good-will of its members for its financial support. At Denver it was a matter of surprized comment that in so many cases this loyalty and good-will did not seem to be worth two dollars.

President Harvey had prepared an attractive program, and it was well carried out. His own dominant educational interest naturally gave the meeting its key-note. Two of the very best papers read at Denver were those of President Harvey himself, at the opening session, on industrial education in general, and a shorter paper dealing with industrial education as related to the elementary school, read to the Council by Assistant Commissioner Downing of New York.

Judging by the local newspapers, a somewhat larger number of foolish things than usual was said by speakers in several of the department meetings. At all events, the newspapers suc-

ceeded in extracting from more than a few papers material for some startling and repellent headlines, which straightway, *more Americano,* were started rolling around the country as profound truths and the mature outgivings of the Nation's most experienced educators!

It is an interesting coincidence that as at the Denver meeting of 1895 the Directors adopted the report of a committee which classified the membership of the body and brought it to its present status of a professional association instead of a crowd of excursionists, so at the Denver meeting of 1909, the Directors adopted the report of a committee which made sweeping changes in the number and grouping of the several departments. As long ago as 1901 at Detroit, Principal James M. Green of New Jersey, in his presidential address, pointed out the inadequacy as well as the illogical character of the existing division into departments. At that time a committee was appointed, headed by Mr. Alfred Bayliss of Illinois, to study the whole question of departmental organization within the Association and to make its report at an early meeting. Meanwhile the situation as to the departments has grown steadily worse with each new addition, and no report from the committee has been forthcoming. During the past year, however, thru the influence of President Harvey, the committee actively took up anew the study of the matters committed to it eight years ago, and after long and patient consideration in meetings held at Chicago and at Denver, submitted an important report which was, after discussion and with some difference of view, adopted by the Directors at Denver. The effect of this report is to reduce the departments from their present number to nine, and this reduction was effected chiefly by consolidation. Hereafter and until further action by the Board of Directors, the departments will be the following:

National council of education; superintendence; professional preparation of teachers; elementary education; secondary education; higher education; industrial education; music; school patrons.

The departments which disappear are school administration

by consolidation with the department of superintendence; child study by consolidation with the department of normal schools in the new department of professional preparation for teachers; business education and science instruction by consolidation with the department of secondary education; manual training and rural and agricultural education by consolidation with the department of technical education under the new name of the department of industrial education; and kindergarten by consolidation with the department of elementary education.

The department of Indian education is abolished, and the teachers of Indian schools are invited to continue their meetings with the National Education Association as an affiliated body instead of as a department.

The arguments in favor of the adoption of the committee's report were that it would materially reduce the cost of publication and the cost of distribution of the volume of proceedings; that it would lessen the dissipation of energy and interest, consequent on the multiplicity of departments; and that it would clear the ground for a more logical and effective development of the departments in the future. With this latter point in mind, the committee was continued and enlarged by the addition of President-elect Joyner, President Harvey, and former President Green, who first brought the matter of department organization forward for discussion in 1901.

The directors elected the following list of distinguished foreigners to be corresponding members of the Association:

England—Alfred Mosely, C. M. G., Union Bank Buildings, Ely Place, London, E. C.; Professor Henry E. Armstrong, 55 Granville Park, Lewisham, S. E., London; J. Struthers, secretary to the Committee of Council on Education in Scotland, 55 Whitehall, London; R. Blair, Education Department, Victoria Embankment, London, W. C.; H. T. Gerrans, bursar of Worcester College, Oxford; Sir Edward Henry Busk, vice-chancellor of the University of London; T. Gregory Foster, Ph.D., provost of University College, London; Henry Jones, Ph.D., professor of moral philosophy in the University of Glasgow; J. St. Loe Strachey, M.A., editor of *The Spectator*, London.

Denmark—Otto Jespersen, professor of English philology in the University of Copenhagen; Harold Höffding, professor of philosophy in the University of Copenhagen.

Germany—Professor Dr. Ulrich von Wilamowitz-Möllendorff, professor of classical philology in the University of Berlin; Professor Dr. W. Paszkowski, director of the bureau of information, University of Berlin; Professor Dr. F. Klein, professor of mathematics in the University of Göttingen; Geheimrat Dr. Friedrich Schmidt, Ministerial Director, Cultus Ministerium, Berlin; Geheimrat Dr. Reinhardt, Cultus Ministerium, Berlin; Professor Dr. H. Münch, professor of education in the University of Berlin.

France—M. Louis Liard, vice-rector of the University of Paris; M. Ernest Lavisse, director of the Ecole Normale Supérieur, Paris; Professor Emile Boutroux, director of the Fondation Thiers, Paris.

The self-seeking and wire-pulling element was in evidence in the hotel lobbies very much after the fashion at Asbury Park, Los Angeles, and Cleveland, but this element seemed to be neither so numerous nor so noisy as in previous years. There was a good-natured three-cornered contest for the presidency of the Association between the friends of Superintendent Blewett of St. Louis, Superintendent Phillips of Birmingham, and State Superintendent Joyner of North Carolina. Each had a host of advocates, and each was thoroly qualified for the presidency. When it became apparent that Mr. Joyner had the largest number of votes in the nominating committee, his nomination was immediately made unanimous with great heartiness. Altho Mr. Joyner has not been so closely identified with the Association as either Mr. Blewett or Mr. Phillips, and is not so well known to its members, yet he has performed a stupendous service in the state of North Carolina, and he has every personal and professional qualification to fill admirably the high office to which he has now been chosen. President Joyner will receive, as he should, the cordial and hearty support of the entire membership of the Association. From the expressions of opinion heard on every side, it is safe to say that the friends of Messrs. Blewett and Phillips

need only possess their souls with a little patience in order to see their favorites honored as they would like to have them.

Are the Halcyon Days of the National Education Association over?

The older members of the National Education Association asked each other many times at Denver, "Are the halcyon days of the Association over?" A number of causes suggested the question. Many of the older and more distinguished leaders of education in the United States are rapidly passing away, or are dropping out of the ranks because of age or impaired health. Those who are coming forward to fill their places are not, it must be admitted, very promising material. A number of the most active of them are more interested in promoting their own personal interests thru the medium of activity in the Association, in securing a better paid or more conspicuous post, than in contributing to educational thought or to details of educational policy. Not a few of them are quite incompetent to make any such contributions. Then, too, since the railroad arrangements which formerly existed seem no longer possible, the Association can not command the revenue which it once had and must retire, perhaps for ever, from the stimulating field of investigation which it entered on with so much success at Saratoga in 1892. Nothing has done so much to attract strong men to the Association, and to keep them interested in its work, as this policy of using the Association's funds for study and publication. Now that funds are no longer available for this end, the policy halts or perhaps must be finally discontinued. Again, the rapid growth of the summer schools and the summer sessions of universities has powerfully diminished the attendance at the National Education Association meetings. The best and most studious teachers are going year after year to these schools and universities for study and wider training. The date at which the National Education Association meets, and apparently must meet, makes attendance upon its sessions, in most cases at least, inconsistent with membership in a summer school or with study at a university summer session. It may be that the revenue of the Association within the next year will

fall short of its necessary expenses, even after every possible economy has been practised. Should it do so, a very serious problem will confront the administration.

There is one certain and easy way by which the Association can be lifted above all possible embarrassment, no matter how small may be the registered attendance at any given meeting, and that is to have institutions—universities, colleges, normal schools, secondary schools, elementary schools, and libraries—join the Association as active members, receiving the annual volume of *Proceedings* in return for their membership fee and putting it upon the shelves of the institution's library. This volume is well worth the two dollars that membership costs, and with a membership composed of, say, 5,000 institutions which would not die, or resign, or move away, the future of the National Education Association would be secured. It is understood that in the State of New York, and perhaps elsewhere, an active movement to build up this institutional membership is shortly to be undertaken. We wish it all success, and nothing that could happen would be better for the National Education Association than to have it succeed.

The State Board of Education in Massachusetts

On July 1 the old State Board of Education in the Commonwealth of Massachusetts and the Commission on Industrial Education past out of existence, in accordance with a statute past by the legislature and approved by the governor May 28, 1909. The main provisions of this act are as follows:

"Four of the present members of the board of education and one of the members of the commission on industrial education shall be appointed members of the board . . . provided for by this act."

"The new board of education shall exercise all the powers and be subject to all the duties now conferred or imposed by law upon the present board of education or upon the commission on industrial education . . . except as may otherwise be provided herein."

"The board shall appoint a commissioner of education,

whose term of office shall be five years . . . Said commissioner may at any time be removed from office by a vote of six members of the board. He shall exercise all the powers and be subject to all the duties now conferred or imposed by law on the secretary of the board of education. He shall be the executive officer of the board, shall have supervision of all educational work supported in whole or in part by the Commonwealth . . ."

"The board shall also appoint two deputy commissioners at equal salaries, one of whom shall be especially qualified to deal with industrial education."

Thus passes away the State Board of Education instituted in 1837, continuing in office, therefore, for a period of seventy-two years. Horace Mann was the first executive officer, and Edward Everett the first chairman of the board of education. A long line of illustrious men have served on this board, and its history is the story of the rise of the common schools, the development of the normal schools, and the solution of vexed problems which have for three-quarters of a century made the Commonwealth of Massachusetts by common consent the standard-bearer in the cause of education for the sister states in the Union. Indeed, the acts of this board in the upbuilding of the schools have more than any one cause been instrumental in developing the common schools thruout the United States.

With this glorious record, however, it is undeniable that beginning about twenty years ago, the board of education began to lose the confidence of the schoolmen of the state. This, with the appointment of the industrial commission, and the rising tide in favor of vocational training, created a conviction in the legislature that the traditions of the board of education, its conservatism, and even its triumphs in the past, unfitted that body to handle speedily and efficiently the new problems which the age and the needs of the young people in the state demanded.

The new state board of education, appointed by the governor, consists of nine members, as compared with eight members on the old board. Of these, three hold office until 1911,

three until 1912, and three until 1913. The new board is composed of Frederick P. Fish, T. B. Fitzpatrick, C. Q. Richmond, Mrs. Ella Lyman Cabot of the old board, Professor Paul H. Manus from the industrial commission, Sarah L. Arnold of Simmons College, Professor L. L. Conant of Worcester Polytechnic Institute, President Hamilton of Tufts College, and Simeon F. Chase, a manufacturer of Fall River. The board, with Frederick P. Fish as chairman, is a progressive-conservative body.

Created at this time, an initiative may be expected which would have been difficult to develop in the old board. Great things may be expected from this new organization, but the state need not expect to be startled by any immediate radical change in courses of study and plans for the education of the children of the Commonwealth. The process, if one may judge from the combination of radicalism and conservatism, evinced in the composition of the board, will be more that of grafting than of substitution. Symptoms of a desire to cooperate more closely with the superintendents of schools and principals of high schools over the problems arising for solution in the state are visible. Judging from chance interviews with individual members of the new board, no announcement of a specific, definite policy relative to the schools of the state may be expected. At the present time, its first and greatest problem is that of securing a competent, efficient commissioner of education to serve as its executive officer. It would seem that the opportunities for reputation and prominence held out in this new office should be particularly attractive to men of personality and power, who can adequately rise to the situation. The board of education is broad-gaged, and while recognizing that, all things considered, a Massachusetts man would be in closer touch with the problems of the state, they may find this man in any quarter of the globe.

It is not believed in well-informed circles that the new board of education is to institute any radical recommendations as to the conduct of the schools of the Commonwealth. Yet, this board has been appointed because of a deep-seated dissatisfaction with the trend of the schools. Undoubtedly, their atten-

tion will be directed to the elimination of unnecessary elements in the course of study, involving the shortening of the time spent in the grammar school, and making possible the introduction of certain courses which may be correlated with vocational work to come later. Similar problems, involving duplication of effort in the normal school and high school, must soon demand attention. These problems and their solution will necessitate a rather slow development of vocational schools; because each step must be carefully studied before the Commonwealth can permit the reckless and expensive unauthorized experiments which would follow the leadership of a less able and less intelligent board of education.

Without power to enforce their recommendations upon the schools of the state, except in so far as they can influence public sentiment, individual members of the board, at least, seem to have clear views of the problems involved: with their desire to be an active force they manifest a desire to abandon largely their individual views, if necessary, to follow the leadership of the great commissioner who will be the executive officer of the board.

Reorganization in the Bureau of Education

The United States Bureau of Education at Washington, which has occupied for thirty-seven of the forty-two years of its existence the rented building at the corner of Eighth and G streets, Northwest, was removed in July to the second floor of the old Post-Office Department building between Seventh and Eighth and E and F streets, with storage and mailing rooms in the basement. Its new quarters are more commodious and much more comfortable than the old. This is the first time in the history of the Bureau that it has been quartered in a building belonging to the government.

A measure of reorganization in the staff of the Bureau was made during the month of July. Mr. Lewis A. Kalbach, who has been connected with the Bureau for twenty-two years, and who has served during the past three years as clerk to the Commissioner, in addition to his duties as specialist in land-grant college statistics, has been appointed chief clerk of the

Bureau. He has been succeeded as specialist in land-grant college statistics by Professor James E. McClintock of the University of Maine, whose principal work will have to do with the relations of the Federal Government with the land-grant colleges of agriculture and mechanic arts. The former chief clerk, Mr. Lovick Pierce, continues his connection with the Bureau as chief of the correspondence division. Dr. Harlan Updegraff, who has served as chief of the Alaska Division during the past two years, has been appointed collector and compiler of statistics, succeeding Mr. W. Dawson Johnston, who has been appointed librarian of Columbia University in succession to the late Dr. Canfield. Dr. Updegraff's principal duties will have to do with the relations of the Bureau with the chief school officers of the several States and cities of the country.

Arrangements have been made by the Bureau of Education and the Bureau of the Census for the collection by special census agents of financial statistics of the school systems of the larger cities. The statistical form used by the census office will be furnished shortly by the Bureau of Education to a number of these cities that can not be reached this year by the census agents. This form is the outcome of a conference between the two offices concerned. It is still in an experimental stage, but its use by the census office and the Bureau of Education is expected to develop any defects or weaknesses in it, and lead to the adoption of a form that will meet the conditions existing in the various cities of the country.

Another forward step has been taken as regards the prompt issuance of the annual report of the Commissioner of Education. On certain conditions, which can undoubtedly be met, the Public Printer has agreed to furnish bound copies of volume 1 of the annual report for 1909 on December first of this year, and volume 2 on March first of the year 1910. In view of this arrangement, it may now be confidently expected that the first volume, containing the general surveys and directories, will be in the hands of readers before the convening of those educational associations which meet during the holiday season; and the second volume, containing the statistical tables, will be received prior to the Easter vacation meetings.

EDUCATIONAL REVIEW

OCTOBER, 1909

I

EDUCATIONAL ADVANCEMENT AND THE NEW FEDERALISM[1]

I. *The breaking point in educational progress*

That the spirit of unrest and apprehensiveness pervades the whole sphere of educational thought and endeavor today is self-evident alike to layman and professionalist, to the exponents of educational conservatism or of educational progressiveness. While the history of the development of educational ideals and practises reveals clearly a certain persistent iconoclasm of society, the contemporary criticism of the methods and institutions of elementary, secondary, higher, and professional education is more trenchant than in any previous period. Beyond the assumption that educational procedure is but receiving its proportionate share of the determinative attention which modern society is devoting to each of its chief institutions, in the effort to solve pressing social problems, no satisfactory explanation has yet been made for this widespread, unsettled condition of educational affairs. When confronted by the generally acknowledged phenomenal advance in all grades of education during recent years, such an assumption must be accepted as offering an explanation of merely superficial validity; for notwithstanding the wide social recog-

[1] It will be apparent that I have had elementary and secondary education particularly in mind thruout this presentation. With obvious adaptations the conclusions are, I think, applicable to higher education as well.

nition of the rapid improvement both in the technique and extent of education, society continues to direct the searchlights of suspicion with too great frequency and with too much intensity to give any feeling of satisfaction or security to serious students and workers in education. Many are of the opinion that perhaps society has ample evidence for bringing a bill of impeachment against the most fundamental of its institutions.

This matter may, it seems, be examined briefly from two points of view, that of the representatives of the profession of education, and that of society itself. The progressive representatives of education, being keenly conscious of the limitations of accomplishment and of a certain lack of correlation between educational procedure and institutions, and the demands of the larger social life, openly charge society with an attitude of conservatism and apathy, and of captious criticism which impose insuperable obstacles in the way of a rational educational progress. It is as if these representatives said to society: "Give us more freedom of movement and more power of initiation and the results of education will be more in accord with your and your children's needs and demands. Let us re-chart the travel routes upon the map of social progress." To which society responds: "The world is full of pseudo-experts and false prophets and guides in education. The smoothly trodden old routes mapped by the experience of many generations are to be preferred to any new ones." And so the controversy, with charge and countercharge, has waged; the educational reformer on one side, and a conservative or negligent society on the other.

While not without certain evident reservations, it may be submitted that the vast majority of the proposals for educational reform and progress have been in the main altogether unworthy of acceptance and impossible of successful application. It may be further submitted that, in the large, society has in this controversy assumed a defensible position; that society has accepted the dicta of educational progress fully as rapidly as the scientific soundness of those dicta justified acceptance.

The United States Commissioner of Education has recently

called attention[2] in a significant way to the broad principle of social advance that every invention is in reality a distinctly social and not an exclusively individual product, that every epoch-making movement, mechanical, scientific, artistic, or literary, is the cumulative result of a long series of individual efforts and experiences. In other words, invention and discovery are the results of past social progress as well as the causes of new social progress. This conclusion, bulwarked as it is by a vast historical evidence, seems pregnant with suggestion for American education and further offers some explanation of the present critical attitude of society, and also of the tardiness of our educational progress.

Any careful review of the fluctuations of educational opinion in this country during the last twenty years will reveal the individualistic and uncoordinated character of the proposals for reform. Educational science, even when it has pretended to be scientific, has been a one-man science and each of the one-man scientists has investigated and concluded with a striking disregard for every other one-man scientist. Contrary to the canons of scientific research, few investigators in education have verified or applied the conclusions of other investigators. Certainly when the educational investigator's peers refuse to sit as an impartial jury, society may be justified in rendering the verdict, "not proven."

Not only this, but there has been no marking out of the problem in education, in large; no analysis of the larger problem into clear-cut issues so as to permit the utilization of the collected results of accomplished investigation and of the co-operative efforts of individual investigators.

The evidences in the matter seem to warrant these general conclusions: that education has lagged behind in the forward movement of social-scientific institutions; that while, to a large degree, this retardation of educational progress has been due to the instinctive loyalty which humankind has for those institutions and that procedure having the sanction of tradition, the failure to analyze and investigate the problems of education

[2] Elmer Ellsworth Brown :—"Are we an inventive people in the field of education?"—*Science*, Vol. 26 (1907), pp. 161-170.

in a truly scientific way has also been an obstacle to progress which may not be omitted; that effective educational reform in its largest sense must be organized so as to permit of comprehensive and coordinated research and investigation.

Democracy has been accustomed to settling its scientific problems by the "showing of hands," and has therefore deserved the criticism and cynicism for employing such childish technic. In this one respect education has in the past complied with the scientific method of democracy. The hand instead of the head has been the means of deriving our new educational formulas.

II. *The issue—Investigation*

Rational and conscious social reform may be said to pass normally thru four or more less clearly distinguished stages,—the stage of stress and pressure, the stage of investigation, the stage of propaganda, and the stage of application and reorganization, succeeding one another in the order named.

That American education today is in a stage of stress and pressure is not only obvious to the disinterested onlooker, but seriously and uncomfortably patent to the layman interested in the welfare of his own generation, and to the educationalist who takes exception to the canons authoritatively prescribed by the traditions of the past. The great work of education during the early days of our republic was to establish the ideal of education in a democracy. It was a period of the missionary and the preacher in education. Notwithstanding the fact that this ideal may now be said to be firmly established, thus permitting us to turn our attention back to the validity of the old processes and institutions, we continue to employ the hortative instead of the scientific method of instituting needed reforms. We have failed to distinguish the several stages thru which reform must normally pass, and thus our educational doctrine has become decidedly scholastic. We have confused the function of the preacher and the

scientist. The great issue in education today, if we are to move beyond the well recognized stage of stress and criticism, is to distinguish more clearly the function of the educational missionary from that of the educational scientist.

III. *The new federalism*

Notwithstanding any essential differences in the political creeds, of which we as individuals may claim profession, and in spite of the diversity of our everyday partizanship and allegiance toward both men and affairs, it may not, I think, be gainsaid that this United States has, within the period of a little more than a single decade, entered upon a new and distinctive stage of national, social, and governmental development. In fact, this new development has become so well recognized as to receive the strikingly appropriate term: *The new federalism.*

The complexity of modern social life has been, in the case of our American civilization, intensified to an hitherto unknown degree by the very rapidity of its growth and expansion. Therefrom have arisen entirely new social necessities before many of which the individual members of our political federation find themselves either incapable or apathetic of action. The opening of new avenues for centralized federal activity has seemed not only expedient, but apparently inevitable. The late war of benevolent aggression resulting in the enforced assumption of paternal guardianship of an insular territorial family, together with the present-day internal struggle to prevent the enmeshment of our collective life within the net of capitalistic and corporate exploitation, has caused us as a people to alter considerably our whole point of view with regard to the scope of legitimate federal activity.

Well-nigh commonplace is it to remark that the center of gravity in the exercise of many governmental functions is shifting in a striking manner. The negative doctrine of federal aggression in the days of nullification and after has been translated into the positive doctrine of federal responsibility. More and more the states are turning toward the federal government for protection and assistance. The greed of wealth

and the germ of tuberculosis differ only in degree as problems of stupendous social importance for the solution of which any individual state clearly recognizes its impotence. The epoch-making accomplishments of such national agencies as the Department of Agriculture for the common good have served to give added importance to the potential worth of national encouragement and participation in certain fundamental social demands and activities. The recently defined policy for the conservation of natural resources, and the recent institution of the investigation of the conditions of rural life, are but further indices of the extension of federal influences into new directions. Constitutionally extravagant tho it may have appeared to some, the recent congressional proposal to prevent by federal law the exploitation of children by industry and the consequent waste of the nation's vigor and virility contained evidence of an underlying humanitarianism and of a deep-seated sense of social justice which refuse to recognize the artificial limitations of state boundaries.

Disregarding the academic objections arising from the endeavor to preserve traditional legal distinctions or traditional constitutional balances, the large extensions of existing federal activities, and the development of new ones undreamed of a half-century ago, are portended by the signs of the times.

IV. *Education and the new federalism*

Certainly some explanation would need to be forthcoming did not this new federalism,—this new cooperation of state and nation,—develop some consideration of public education as a social activity of great national concern. It is not ill-timed that we should be witness today to an unmistakable and widespread movement for an enlargement of the scope of federal participation in the affairs of education, that most characteristic agency for social reform, and one which the individual states have jealously guarded against encroachment, one towards which the national government has ever maintained a non-committal attitude. The present-day proposals, in and out of Congress, concerning federal participation in the

educational affairs vary in the widest extreme—generous subsidies from the national treasury for the establishment and support of schools of different grades, the establishment of a national department of education of coordinate rank with other executive departments, the institution of a great national university center for research, down to a negative policy of *laissez-faire* and the complete elimination of the federal authority or encouragement from education.

It is untimely to analyze, in this place, the arguments of either the proponents or opponents of a more vigorous and positive federal educational activity. Whether the position of the one party that industrial expansion and cultural development are matters of such large concern as to permit of no bounding by state lines, that there is a pressing need of a clearer definitive of the federal policy so as to bring about closer correlation and a clearer consciousness of our unrealized national ideal, or that of the other party that the progress in education has been as rapid as our people could keep pace with, that a strict construction of the powers of the central government under the Constitution excepts education from the list of federal activities, that any effort for the extension of federal influence would mean federal usurpation of undeniable rights of the several states.

To one whose chief interest is in the advancement of education as a scientific procedure, rather than the erection of another great administrative unit within our federal political machinery, no inconsiderable portion of the arguments for or against the extension of federalism in educational matters have mist the real issue at stake. There seems to be no valid reason for the establishment of any federal machinery for the administration of education. There is a little, tho not weighty, argument that might be advanced in support of federal aid to some grades of education. On the other hand, education is the one subject of vital significance to human welfare, the scientific investigation of which the national government has not generously subsidized and encouraged. Education as an object of *scientific* attention has scarcely come within the purview of the province of the states. To investigate the

educational problem in a scientific manner would seem to afford one of the greatest opportunities yet opened to the new federalism for the rendering of effective service to American progress.

V. *Federalism and the problem of educational investigation*

My contention, then, is that the greatest need for educational reform today is one that can be met most directly and most effectively by the national government; that thru the proper performance of those duties for which there is already legal sanction, it can supply that essential prerequisite for educational progress, scientific and consistent investigation of educational problems.

The statute under which the work of the Bureau of Education is now carried on, contains the provision that it shall "collect statistics and facts showing the condition and progress of education in the several states and territories, and to diffuse such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems and otherwise promote the cause of education thruout the country." This provision in itself is comprehensive enough for the rendering of valuable service. Curiously enough, however, the national government has been loath to recognize the fact that the Bureau of Education could not diffuse information without having that information and the ready means for collecting it. "Statistics and facts" are not endowed with the power of self-aggregation. From the standpoint of the student it must appear that one of the present needs of American education could be met by giving to the Bureau of Education an adequate force of competent field agents whose chief business would be to gather reliable statistics and reliable information relative to education for interpretation and diffusion. One of the wonders of American education is that the Bureau of Education has been able for forty years to carry on a monumental work of supplying valuable educational data and information with no means of collecting that information and data other than the good

will of the educational officers and school-teachers of the country, and the privilege of franking its mail. It would be as reasonable to expect the Bureau of Census or the Department of Agriculture to carry on its work with the greatest efficiency and success by correspondence with voluntary correspondents, as to expect the Bureau of Education to do its best work by means of such a method.

However valuable the improvement of the methods of educational communication could be made thru the Bureau of Education, the work of the Bureau ought not to be confined to this as its chief or sole function. To meet the greatest need of American education the Bureau should be endowed with power and provided with resources for conducting in a scientific manner investigations of some of the larger and more important problems of education as they appear at the present time, especially those problems that are concerned with elementary and secondary education. The peculiar comprehensiveness of these problems almost precludes the possibility of careful investigation by any individual, voluntary association, or state. No agency less effective than the federal government can reasonably be expected to provide men, money, or time for the accomplishment of the needed ends. No agency less dignified and less resourceful is potent enough to bring its influence to bear directly upon problems, not only the most difficult of all scientific problems for solution, but also the most difficult of social and scientific recognition. To an humble student of the matter, the expansion of the Bureau of Education so as to enable it to serve as the central laboratory for American research in education, undertaking that now not undertaken, coordinating and organizing that now being attempted in a haphazard and incidental manner by individuals, institutions, and educational associations, and thereby assuming the responsibility of the leadership now so much needed for the advance of American education, is one way at least of exalting the greatest of the social sciences. This is the opportunity of the new federalism.

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II

THE ELECTIVE SYSTEM AND THE SCOTTISH UNIVERSITIES

Whether we laud the elective system as a counsel of perfection, or call down fire from heaven upon it, we evince keen interest. Accordingly, we may be glad to know how its partial introduction has eventuated in a foreign country, one infected, like the United States, with a passion for education, but under other circumstances, and after a very different academic history. However, to understand the position, we must begin by taking a glance at the conditions and the history.

Unlike our institutions for higher education, the Scottish universities do not enjoy autonomy. Their faculties can not meet and, with a wave of the magician's wand, alter the curriculum overnight. Imperial Parliament rules, and the four universities are compelled to walk lock-step more or less, as it were. They perform their services inside a framework which suffices to control every important activity. So, while the spirit of Glasgow may differ from that of Edinburgh, both may diverge from Aberdeen, while all three may offer contrasts to St. Andrews. Nevertheless, the general scheme remains identical in all cases. Thus, thanks to Royal Commissions, and subsequent parliamentary legislation, the universities have past thru the fire of "reform" on two occasions since the middle of the nineteenth century, and we need not trouble ourselves with events anterior to the Act of 1858, nor is it necessary to travel beyond the Faculty of Arts.

The ordinances formulated by the Commission of 1858 laid down a hard-and-fast curriculum for the Arts degree, so devised and hedged around that no prospective graduate could be excused from it under any circumstances whatsoever. The academic authorities were without power to abate or alter the regulations by an iota. For the ordinary undergraduate the

period of attendance ran to four years, and he was required to devote his attention to seven prescribed subjects, neither more nor less. Thus he gave attendance for two years upon the classes of Greek, Latin, and mathematics respectively, and for one year upon each of the classes of logic, moral philosophy, English literature, and natural philosophy (physics). Certificates of attendance upon these classes entitled him to admission to the examinations for the Arts degree, but the regulations were so drawn that he could not pass off any subject without reverting to work done in a previous year. For the purpose of the degree examinations, conducted by an external examiner in association with the professors concerned, the subjects were divided into departments, as follows:—(1) Classics—Greek and Latin; (2) Mental philosophy—logic, moral philosophy, English literature, and rhetoric; (3) Mathematics—mathematics and natural philosophy. It was requisite to pass all the tests, written and oral, enforced in each department, at one time. The practical effect of this rule operated so that a student could not proceed to his classical examination till the end of his second year; he was therefore kept at these subjects continuously for two years as a minimum. In the same way, he could not proceed to the philosophical and scientific examinations till the end of his third or fourth year. Accordingly, here, too, provision for continuous application extending over at least two years prevailed. The notes of the system are perfectly obvious: continuity, concentration, and a sound general education, tending most of all to the production of the logical intellect. And, if a man took the fifth year, usually deemed necessary for the "honors" degree, concentrating still more intensively in one of the three departments, he was in a fair way to become a good scholar, without the narrowness of the secluded specialist. Yet, even so, the criticism, past so forcibly by an eminent Englishman, had only too much basis in fact—"a mouthful of many things, and a belly full of nothing."

For, plainly enough, whatever the merits of this legislation, it stereotyped the course at the very moment when the extraordinary exfoliation of modern knowledge was about to burst forth irresistibly. The multiplication of the sciences, pure and

technical, the luxuriant specialism in economics, history, modern languages, and in philological study, in the widest sense of this term, could force little or no recognition under such an inflexible system. The position proved too patent and perilous to remain free from criticism for long. So, after not a little recrimination between the reformer and the *laudator temporis acti,* Parliament called a second Commission into being precisely one generation after the enactments of the first had become operative. And, today, the Scottish universities are already chafing restively at the chain riveted upon them by the Commission of 1888. The new legislation of twenty years ago, if studied closely by an American, could hardly fail to interest him keenly. For it embodied an admirable specimen of that genius for compromise, "slowly broadening down from precedent to precedent," so characteristic of British governmental procedure. More than likely, the American would be impatient of it, and inclined to smile, perhaps. But he must remember what Sir Arthur W. Rücker, first principal of that most ingenious of educational compromises, the University of London, said to me once: "In the United States you work upon virgin soil ; here we can not dig very deep without coming upon a Roman villa." It needs no profound perspicacity to perceive that the seven subjects of 1858 were "protected," and that "vested interests" could not but grow up around them. Moreover, the enormous increase of the student body between 1870 and 1885 had so enhanced the value of the "protected" chairs that, as has been said, the Scottish universities could call and retain any scholar whom they chose to ask. The assemblage of Kelvin, Jebb, Caird, Nichol, Bradley, Macquorne Rankine, I. Balfour, Bower, Cleland, McKendrick, and others scarcely less distinguished, at Glasgow, for example, was no accident. Salaries ranging from $6,000 to $10,000 (where a dollar is a dollar, and not a beggarly half-crown) with pensions and other perquisites accordant, did not fail to attract. And, if you proceeded to tamper with the system basal to them, you could not but anticipate trouble. Besides, if you proposed to introduce new subjects, implying an extension of the staff, money galore must be forthcoming; and, if not,

then funds must come to be diverted from present destinations. Furthermore, if you aimed to fix salaries, and turn a professor's fees from his private pocket into a general fund, you must anticipate that your appointments would be shorn of their attractiveness to some extent. Of course, the commissioners heard these, and endless other arguments, to weariness. What wonder, then, that they compromised? What wonder that, like the father, his two sons, and the ass, in Æsop, they met more criticism than commendation and that the voice of criticism is in the ascendant at length? As was inevitable, the compromise affected the entire character of the course for the Arts degree, leading to the adoption, not of our omnibus elective system, but of a plan akin to it in measure, tho much more limited in scope. The conservatives fought for the "protected" subjects, the reformers shouted for "open" teaching. As a consequence, each party had its crumb, neither received aught in the shape of a loaf. The division was cicatrized, not healed.

Possibly, then, we are now in a position to grasp the legislation of 1888. Naturally enough, it set out from the existent curriculum, which operated as a norm or base-line. The sacred number—seven—preserved itself quite intact. But the sanctity of the constituent subjects received a rude shock. Moreover, the difficulty of readjustment underwent accentuation, thanks to a significant concession wrung by the outcry of the party of scholarship. Just as in our own universities now, so in the Scottish prior to 1888, the work of the freshman year, in classics and mathematics, partook of high school teaching. The junior classes (as they were called) of Greek, Latin, and mathematics, covered ground which, given an effective secondary system, ought to have been overtaken by prospective students ere the gates of the university had been won. The remedy took the shape of a severe entrance examination—probably the most severe in Britain; and, the elementary classes being thus cut off, the Arts course was reduced from four to three years. University students must come under an attest of fitness to attack work on a real university standard. Thus, as concerned three of the sacred seven, one-half of their cur-

riculum, and more than one-half of their fees, had already gone glimmering. Yet the seven, as a corporate body, so to speak, managed to retain more than the shadow of their traditional prescriptive interest. They had to submit, it is true, to the fellowship of two interlopers, in the shape of modern languages and history. They had to see the old tri-departmental system expand to four, as follows: (1) Greek and Latin; (2) English, modern languages, history; (3) logic and moral philosophy; (4) mathematics and natural philosophy. As a result of this extension, and of the abbreviated course, the elective system put in an appearance. For the new regulations for the Arts degree ran thus:

(1) Candidates shall attend full courses in at least seven subjects, and shall be examined on these subjects. (It may be explained that a "full course" is not less than one hundred meetings of a class in any subject, the meetings to be on separate days).

(2) Of these subjects four must be (*a*) Latin or Greek (not modern Greek); (*b*) English or a modern language (*i.e.*, French, German, Italian, or Spanish) or history; (*c*) logic and metaphysics or moral philosophy; (*d*) mathematics or natural philosophy.

On this scheme, three of the old seven must be elected; and, as nearly all students choose English, the practical effect is that four of the old seven retain their "protection." The three remanent subjects, necessary to complete the required seven for the degree, may be selected by the candidate from the departments specified in Section ix. Section ix runs as follows: The departments of study for graduation in Arts in each university shall include the following subjects:—

1. *Language and literature*

Greek	French	Sanskrit	Celtic
Latin	German	Hebrew	Modern Greek
English	Italian	Arabic or Syriac	

2. *Mental philosophy*

logic and metaphysics	political economy
moral philosophy	education (theory, history, and art of)
	philosophy of law

3. *Science*

mathematics	astronomy	botany
natural philosophy	chemistry	geology
	zoology	

4. *History and law*

history	archæology and art (history of)
Roman law	constitutional law and history
	public law

But here again the tradition of the sacred seven asserts itself. The three subjects, additional to the four which must be selected from nine, can not be chosen without reference to these four. Hence, the whole subjects chosen must be elected in such a way that, in one of three groupings, the old departmental system shall be covered. For the regulation runs: The whole subjects taken shall include either (*a*) *both* Latin and Greek (not modern Greek), or (*b*) *both* logic and moral philosophy, or (*c*) *any two* of the following three subjects: mathematics, natural philosophy, and chemistry. Omitting English, then, which needs no protection in the nature of the case, every Arts graduate must include the territory of one of the three departments as fixt in the regulations of 1858. Thus the advantages of continuity and concentration were maintained, but along predetermined lines. Yet, even in this regard, the introduction of the elective system resulted in one momentous change. A glance at the scheme as outlined above suffices to indicate that the rigid departmental arrangement of 1858 could not be maintained. In a word, the divisions still stand on paper, they do not operate in actual fact. It is not feasible to retain the groups for examination purposes, because, in the altered circumstances, each subject must be treated as a single unit. Thus, just as with ourselves, the close of class instruction opens a direct path to the degree examination. Immediately after he has finished his class, the student may present himself before the degree examiners in the study just pursued. Accordingly, whatever may be said of concentration, the provision for continuity over a period of two years at least has disappeared. To cite a case. A boy has done well at school in Greek, Latin, and

mathematics. In his first year at the university, he elects these subjects. At the close of the year he presents himself to the degree examiners and passes these studies off. In his second year, he elects logic and English. Then, once more, he passes these off. In his third year he chooses history and political economy, and having got rid of them, proceeds to his degree. The effects are these. Within seven months from his first matriculation, he has done with Greek, Latin, and mathematics. After one academic session in logic and English literature, he quits these studies. Then, after six months given to political economy and history, he is finished. That is, he has had two years in which to forget his classics and mathematics; one year in which to lose his freshness in logic and English literature; and he graduates after he has spent a half year upon economics and history. Upon graduation, what does he really know? Does not the Englishman's criticism apply more than ever, notwithstanding the provision for "new" subjects? Has not the course lost its distinctive merits, and with no appreciable compensation? Now, notwithstanding these pertinent questions, notice that the plan, even as it stands, is superior to our own, and in two respects. On the one hand, it does provide for a certain amount of concentration; cognate studies must be pursued, willy-nilly. On the other hand, a mere class examination does not suffice for the degree; the candidate must qualify by his class examinations for that more extensive, severer, and more objective test enforced by the degree examination before a board not constituted exclusively of the teachers involved. Yet, even at this, the Scots find the system far from satisfactory. It does not consort with their ideas of thoroness. Professor Burnet, the eminent Greek scholar of St. Andrews, says: "So far as I know, not a single teacher in any of our four Arts faculties can be found who is satisfied with the degree as it stands. Some may be more venturesome, and some may be more timorous than others in their views of what should be done, but the existing regulations have apparently no one to say a word for them among those who know their working most intimately." The degree "may imply honest enough labor and be difficult enough to obtain, but

it may be a featureless amalgam." Or, as I have said otherwise above, the ordinances permit, and even encourage, "a fragmentary and discontinuous course, in which subject after subject may be finally dismist at the close of a session" of one hundred meetings. Any one who so pleases may draw his private inferences about our own plan by comparing it with this very limited system of options, and giving heed to the unanimous chorus of condemnation. What, then, do the Scots propose to do?

By general consent, two points, pivotal to further reform, have formulated themselves in the minds of those who have a right to judge. In the first place, it is imperative that the ordinary undergraduate should be compelled to reach a plane of more definite, expert attainment in some particular branch of study. That is, the necessity for intensification is conceded on all hands. In the second place, this intensification implies closer personal contact with the teacher thru a tutorial system, and the extension of the academic session, so that the rush of five-day-per-week classes, with its inevitable lack of time for digestion, may be abolished. While the regulations designed to effect these desirable reforms are not fully matured as yet, the direction to be taken by them is perfectly clear. To begin with, the sacred seven are to be anathema at long and last. Five subjects will be exacted for the ordinary degree in Arts. Two of these must be pursued thru two academic years, and the degree examination upon them is to require a higher standard than that set for the three supplementary subjects. Intensive and continuous application is thus to be restored to its old place, but on a much higher level of attainment. Again, with respect to time, the traditional session, covering the five winter months from October on, with the more or less perfunctory summer session as a support, will go by the board. The academic year will be divided into three terms, and thus the number of meetings necessary over the shorter period will be distributed, affording opportunity for lengthened application in a single field, and for real tutorial instruction. This scheme presents a departure from Scots usage so radical that, in my judgment, if carried out efficiently, it will mean a complete in-

ternal reorganization of the Arts faculties. One point in especial strikes me as most obvious and difficult. Granted that a student, equipped with the already considerable knowledge of Latin, say, that the preliminary examination demands, spends his first year in further advance in this subject, what kind of instruction is the university going to provide for him in his second year, when true intensive study becomes, not merely possible, but inevitable? He is no longer on the level of the ordinary, or pass, undergraduate of my time. Is he, then, up to the standard of the "honors" degree? If, as I judge, he is not, the implication is that a completely new range of courses will have to be provided. How this is practicable with the present staff and on the present income, I fail to see. I mention this just to show that the alteration is by no means so simple as might seem from the description I have just given. Personally, I believe it to be desirable in the highest measure; but it seems to me that, just as it raises the standard for the pass degree, it must elevate still further that for the "honors" degree, thus leaving an intermediate field to be overtaken. Nor is the practical difficulty lessened by the traces of the old "protected" subjects that still remain. As we saw above, the subjects of study are grouped into four departments. Now, the candidate is required to elect his five subjects so that his choice embraces studies from at least three of these four departments. In other words, the teachers who have students pursuing their subjects on the "intensive" plan will be burdened, and inevitably, with many others, possibly a majority, who are taking the same subjects as supplementary to their *Hauptfäche,* and therefore on a lower level. It is of interest to note, as of possible bearing on our own conditions, that "every student at the beginning of his first term must submit the subjects which he proposes for his curriculum, and at least a provisional order of study for the approval of the Official Advisers, who act under the control of the faculty. Any subsequent alteration of the curriculum must be submitted to the official advisers and the dean." I have refrained purposely from dealing with the course for an "honor" degree, because we have nothing like it. But it may be noted in passing that

some of the "honor" regulations are eminently worth consideration on our elective system. For instance, candidates in classics must take at least one subject not in the humanistic group; candidates in science must take at least one subject not in the scientific group; candidates in English literature must elect British history; candidates in history must take philosophy or economics; candidates in economics must elect British history, and so on. While, for pass students, education follows psychology, Roman law follows Latin, geography follows geology, and the like. Those who are familiar with academic education in several countries, such as, say, England, Germany, and the United States, will infer forthwith that we have here a plan *sui generis*. It has developed under peculiar conditions, educational, social, financial, and governmental. As yet in the gristle, no one knows how it will eventuate finally. But, even so, it is not beside the mark to ask, What bearing, if any, has it upon our own arrangements?

Any system, educational or other, draws its life-blood, and its significance, from the people who created it for their service. You may import a foreign scheme ready made, but, even so, it can not remain unaffected by the new environment. At the outset, then, one may as well confess that the Scottish universities diverge widely from our own in several particulars.

(1) The youngest university has reached the respectable age of 326 years, the oldest will celebrate its 500th birthday in 1911. The institutions have enjoyed opportunities to root themselves profoundly in the past of their folk. Thus, for many a long year the Arts faculties have occupied a peculiar relation to society at large. Far more than ours, their degrees constitute outlets to a foothold on the first rung of the ladder of life, and have been favored by a consideration that we wot not of. Small wonder, then, that the pressure for an omnibus elective system exerted, to all appearances, by our fluctuating changes, has not been experienced keenly. So much so that, in 1891, one of the oldest and most learned professors of theology was able to affirm: "While there has been undoubtedly a general wish that the range of the degree should be extended to various branches of 'a good general education,' not

at present connoted by it, there has been no public demand for a revolution in its character. A few theorists, who are ready to construct the university system anew on ideal principles, as to the practical outcome of which hardly two of them are agreed, and who can find no other or better aim for the Scottish universities than that of imitating (under whatever diversity of circumstances and conditions) the arrangements of Oxford, Berlin, or Harvard, may have formulated schemes, and, after an academic discussion, have procured the assent to them of a fractional representation of the University Councils . . . but there has not been any desire exprest by the professions which are mainly interested, or by the public, for the introduction of subjects not usually conceived to be included under 'a good general education,' or for the subsumption of an endless variety of special attainments under the designation of M.A." In a word, the Scottish institutions are more stable, because the lines of social activity are less fluid, and the needs to be served by the universities are better defined. The situation reminds one of the sergeant in charge of the Highland squad drawn up for church parade at Edinburgh castle. His commands were snapped out thus: "Presbyterians, right face, quick march! Fancy releegions, bide whaur ye are!"

(2) Professor Dickson's reference to the professions intimates a good deal. The Arts degree forms an indispensable preliminary to the degrees of the "superior faculties" of theology and law. Candidates for the B.D., and the LL.B., must be Masters of Arts; while, more recently, the M.A. has come to take its place as a prerequisite to appointment on the staffs of the secondary schools, whose system has extended greatly in the last twenty years. Hence a source of good, set ballast. Subjects must be included which, on the general consensus, furnish a safe, stable preliminary to subsequent professional study; and, by consequence, professional studies, in the technical sense, are excluded. That is to say, circumstances furnish, almost automatically, a standard of educational value whereby one group of studies is strest, while others are minimized, if not vetoed. For instance, alter your options as you please, it is little likely that the Church will liberate its

students from requirements in English, Latin, Greek, logic and metaphysics, and moral philosophy. If she did, Scotland would no longer supply the empire with its leading theologians. In the same way, the subjects for which the secondary schools call are limited in number, and form an obvious group. And, when you have withdrawn prospective preachers and teachers, you have already cut a large swath in the ranks of Arts students. So, too, the government services formulate certain demands and, like the legal profession, those in control know their own mind well enough to be quite definite. Briefly, the Scottish Arts degree forms a professional propædeutic far more than ours. As such, it enforces definite attainment along definite lines and, outwith them, the constitution of society being what it is, the number of possible candidates is far fewer than in the United States. It has not eventuated there that, to use the words of Professor Harry Thurston Peck, "the so-called 'liberal' policy in university government has not raised mediocrity to the plane of scholarship, but has degraded scholarship to the plane of mediocrity." [1] The Arts degree is meant to qualify for a serious rôle; how serious the precedent entrance examination emphasizes emphatically.

(3) This forces upon our notice the fact that their students are not only prepared much more *evenly,* but much more thoroly. Every one familiar with British academic institutions is aware that the matriculation examination of the old London University was the most trying test for many years. In 1906 I happened to be in consultation with several educational experts at Westminster, when the question arose, Is the Scottish preliminary or the London matriculation the more exacting examination? A very prominent official replied immediately, "I can answer that question, I have just been examining in both." His answer was to the effect that the Scots examination was the more difficult and, in addition, that the northern candidates were better stuff alike in preparation and in natural ability. It has been said, with what authority I know not, that 70 per cent. of our A.B.'s could not meet this test; in any case, it was true a few years ago that 49 per cent.

[1] *The personal equation,* p. 349.

of the Scots examinees failed. This would seem to indicate two things. First, readiness for university work on the part of those who do succeed; second, a certain educational maturity which would argue well for wise choice among possible options. But, however this may be, a strenuous preparation is evidenced, issuing no doubt from the strongly competitive conditions of life, which do not as yet afflict—or discipline—us.

The marked differences in environment, then, may be summed thus: On the one hand, the social situation guards the unity of the Arts course in a manner quite unfamiliar in our midst. On the other hand, the standards are more rigid, because the pressure of life is far severer. The plain effect of these contrasts upon an elective system requires neither comment nor elucidation.

On the contrary, certain general similarities between Scottish and American universities are very startling, so much so that the most evident runs to the length of paradox. Aberdeen and the rest outdo even our State universities in their democratic character. It is not merely that the universities of both lands stand forth as distinctively popular institutions. The Scottish academic atmosphere gives democratic quality freer play. In the United States, the social side of college life tends to loom up larger and larger. As a result, contrasts bred of accidental circumstances—money, for example—can not but affect the reckoning, this is inevitable. But, in Scotland, a man's standing depends almost exclusively upon his brains. Everything worth while goes by competition, a competition that knows no favor to the well-born, no fear of the lowly. Indeed, this characteristic rules so potently that at least one eminent teacher has protested against it. Professor Nichol thought that the constant stress rendered the Arts course too disturbing. Nevertheless, it proceeds from the genius of the Scots folk. Even more than among ourselves, the student attends the university bent upon making it a step to still larger things, and he endeavors, as a rule, to obtain all that he can. Besides, just as in our state universities, the cost is slight and, thanks to the Carnegie fee-fund, may be almost *nil*. The

career counts; hence all college honors base upon distinction in actual work. Rarely does a student receive election to the important posts in the gift of his fellows unless he has proved his ability. Running my eye down the list of past presidents of the Students' Representative Council at Glasgow, for instance, I find that most of the officials chosen to this highest undergraduate post have been first-class honor men, and that a large proportion of them, tho still young men, have already risen to distinction in the church, law, medicine, or education. Further most of them were poor, and gained the front solely by their own ability and application. Thus, the elective system, such as it is, meets a student body inoculated with quite distinctive tendencies; a body greedy for acquisition, and this for the purpose of personal distinction and efficiency. That is to say, completion of individuality, rather than direct reference to use in future life, dominates the atmosphere, and determines the norms. The itch for "campus celebrity" is nigh unknown, the necessity for personal enlargement, employing the course as a direct means, prevails almost everywhere. Elections really matter, they can not be undertaken with a view to possible subordination of self in this or that practical activity. Here the democracy sees the opportunity to differentiate itself by tapping the sources of its own latent ability. A spirit cursed with the defects of its excellences, as it is, there can be no sort of doubt, at the same time that it accounts for the success of the Scot so utterly out of proportion to his numbers. He has "hoed a hard row," knowing why. For, if he permit himself the luxury of options, the reference is, not to possible eventualities in office or factory, but to the necessity for self-improvement here and now.

(4) As with us, too, especially in the state universities, the great majority of students are dependent upon their own efforts. Serious purpose possesses them—too serious sometimes, for they often break under the strain. But economic conditions do not exist to deflect it from the path of more or less ideal ends, and to link it with commerce or business. Thus the drift towards abuse of options, in the vague notion that they may be useful, runs far less powerfully than in a new country.

No doubt, tendencies have appeared to regard the Arts degree as an end in itself, just as many Americans seem to judge the Ph.D. But, even at this, the dangers inherent in electives can not be said to figure so prominently. It is true, as in our own case, to some extent, that the frequent examinations absorb too much energy, and that, in particular, they interfere with the voluntary exercise of intellectual energy by the students. Yet this can be counteracted by the staff, and, so far as I can make out, our Scottish colleagues are far more insistent than we upon the wish that students should pursue knowledge for its own sake, and thus develop their powers fully and freely, without reference to such ulterior motives as even university exercises and examinations. In other words, the vice of departmentalism strikes no deep root with them. The bearing of this fact upon an elective system needs no emphasis.

In conclusion, we may notice that the Scottish universities, extreme tho their democracy be, tend to differentiate and control studies in such a way that the presence of an elective system does not produce disintegration of the characteristic Arts course. For, (1) many subjects are held to be, not simply of interest to specialists primarily, but also of so composite and comprehensive a nature that they can not prove advantageous for the average undergraduate. They demand a preliminary training in languages, history, philosophy, or what not, and apart from this, their presentation to an immature student can not but degenerate into a sad farce. Without culture-root they hold no culture-value. Thus, several of our airy excursions find themselves eliminated. Some acquaintance with mathematics and astronomy would appear a wise preliminary to adventures in the moonshine. The intensification, inseparable from subdivision, requires, as a necessary prelude, sound acquirement in the elements and principles basal to the particular field as a whole. *Cui bono*—to flourish Greek archæological slides before pleasant young ladies and gentlemen who know scarce enough of the Greek alphabet to pronounce the names of their own societies, and can not tell a plinth from a frieze on sight? How teach the "English" Bible to students if your "professor" forsake his "English" for a field where he

is guiltless of the most beggarly elements of information? The supposition that such unholy performances are "educative," on a level with application in a study where the student enters with some real preparation, were utter fatuity. And your Scot's bump of caution has been too much developed by hard knocks to permit of this luxury. His fare may be oatmeal, but he asks the real thing, and fancy fritters avail nothing to stay his pangs.

(2) Purely professional courses are eschewed as far as possible. No real gain accrues if one provide for the immediate future of the body at the sacrifice of something which would contribute to permanent elevation of the spirit. If you must introduce professional options, counting in another faculty, you ought to follow a rational principle. The aim of the Arts curriculum being plain, this principle requires no search on the shadowy outskirts of educational practise. You face the question, What pure science—mathematico-physical, biological, or human—underlies your proposed professional study? Determine this, and your plea will obtain careful consideration, not otherwise. The Arts faculty has not received a commission to support that "ill-considered system which forces a half-education upon all men, whether they will or no, thus breeding for the state some of its most difficult sociological problems."[2] Roman law, for example, presupposes a competent grasp of Latin. This being understood, the subject itself may enter the list, and gain attention in its historical, philosophical, and political aspects. Doubtless, these will not help the embryo attorney to draw a brief, or argue a cause, but they will teach him that law claims a recognized place among the other human sciences, that enactments embody the ideas and ideals of a civilization at a given stage of its development; in short, that law itself ranks as one incarnation of *Kultur*. Thus the object of the Arts course becomes quite evident, like the attitude of the Arts student. Let the study be what it may, the end always bears relation to acquirement in and for itself, never to its eventual use as an instrument of nimble muck-raking.

[2] *The personal equation*, p. 352.

(3) The operation of the elective system is also influenced profoundly by the academic atmosphere. The necessity for definite attainment in knowledge, if one is to become an enfranchised member of the university, so to speak, compels concentration and continuity. The premature confusion of general with highly specialized pursuits lies under a ban. No matter how desirable, "soft options" avail little or nothing in the final account. For at best, they lead only to a "pass"; and, even if a "pass" imply more than our "credit," it carries no scholastic weight in the academic eye. Similarly, the numerous awards of prizes, scholarships, and fellowships, always upon a strict competitive basis, tend to keep the student's perspective lucid. Their attainment may, often does, determine the channel whence he proceeds to a career more worth while than the average. And he must achieve them by his own steady purpose, ability, and sustained application. He bulks before the academic community, not as a member of the delectable company of Gamma Sigma, or Ghost Seers, not as a pert youth who speaks his jejune piece on a subject about which, in the nature of the case, he has nothing to say, but as a scholar or fellow in this or that recognized group of orderly study. The whole trend of his environment suggests that he systematize his elections, that he dare not flounder about rudderless. Even if the official adviser, his father confessor, fail from his elbow, the familiar spirit of the place would speak soft admonition. It would say, "You can not expect to take aught out unless you bestow something." In a sentence, the inchoate features of our elective system are conspicuous by their absence; and, most emphatically, subjects, not *hours,* count.

(4) Finally, be the theory of the elective system what it may, the practise puts a premium upon a certain modicum of educational common sense. A clear tendency is visible to ballast the curriculum in specific ways. As every one recognizes, some subjects possess a definite body of settled, codified information, and, as a matter of plain fact, they are taught in identical fashion the world over. Others, again, fall in the category of a study that shall be nameless, about which one of my colleagues, who professes it, remarked to me, "No two

men in our universities are teaching the same thing." Placed in a strait between these contrasted types, the Scot hesitates not a moment on the problem of relative educational value. The former has won its fit place in the Arts course, the latter may belong there on equal terms some day; meanwhile, it can never aspire to be more than a sequel to thoro training by means of its disciplinary neighbor. Studies still on the make can not but have a point of departure; only when you have mastered this is it safe to proceed further. On such a scheme you obtain your option, no doubt; but you are compelled to begin by proving your fitness for the implied freedom, because, educationally, dangers beset it. As a natural upshot, the Scots bill of fare offers less variety than ours, and it always demands that what is selected shall be digested with some approach to thoroness. I leave to others the delectable task of deciding which prescription affords the better remedy for youthful inexperience. It is certain that we can not adopt a foreign plan, just as it is certain that our omnibus degree could never be transplanted to Scotland. But, as the Scots have profited by investigation of our methods, we might learn something by a thoro inspection of theirs, the more that we both happen to be in the same boat—of transition.

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Postscript:—With reference to the large proportion of undergraduates (as above noted) whose intention is to enter the profession of education or the church, the following figures may be of interest; they are taken from the latest Report of the Official Advisers at Edinburgh University, which came into my hands after this article was written.

(1) Of 281 freshmen, 174 look to teaching or the church. Of the remainder 70 are undecided.

(2) Of 678 upper classmen, 472 look to teaching or the church. Of the remainder 130 are undecided.

III

THE NON-URBAN HIGH SCHOOL IN MASSACHUSETTS AND NEW YORK

I

THE STATE AND SECONDARY EDUCATION

Most discussions of secondary education seem to have reference to high schools in cities and very large towns. In view of the fact that small high schools are a very important factor in American secondary education, both in regard to number and enrollment, this study will treat of public high schools in non-urban towns and rural districts, or those with a population of less than 8,000. After a brief exposition of the organization of education in Massachusetts and New York, we shall discuss at some length state aid and control of secondary education. The chief sources are the latest school laws of the two states, and the annual reports of the Massachusetts Board of Education and the New York State Education Department. We have also drawn to a considerable extent on two articles by Dr. E. J. Goodwin, in the EDUCATIONAL REVIEW, XXXI and XXXV, and on the proof sheets of E. A. Snyder's dissertation, *State administration of rural high schools.*

In spite of the well-known disadvantages of small high schools, they have many advantages, so that in results accomplished, the high schools outside of cities seem to compare very favorably with those in cities. Mr. J. W. Macdonald seems to think that pupils in small high schools are superior to those in large ones. A statistical comparison—in so far as the results of written examinations justify any comparison—is available for New York. In the state academic examinations of 1905-1906, high schools in villages equaled those in city schools, tho the latter were ahead in the percentage of honor papers.

The secondary systems of Massachusetts and New York are

of very high rank, tho of a widely different nature. The New York educational system is the most highly centralized one in the United States, while that of Massachusetts is at nearly the opposite extreme. The New York high schools are, therefore, on a somewhat uniform plane of excellence. On the other hand, the Massachusetts system of extreme respect for the individualism of communities produces some of the best schools in the world, and also a few very poor ones.

The local unit of educational administration differs in the two states. In Massachusetts the county has nothing to do with education except to maintain and manage truant schools. The local unit is the town; but "two adjacent towns, each having less than five hundred families or householders, may vote to form one high school district for establishing a high school." The law compels all towns to obtain professional supervision; every town must employ a superintendent of schools or be in a superintendency union or in a superintendency district. New York is for purposes of education divided into school districts, in which the business is chiefly managed by the district meetings, with some power in the hands of elected trustees. When a school district has become too large conveniently to meet and transact business, a union free school district is formed from the common school district from consolidation with one or more common school districts. A further increase of population leads to the formation of chartered cities, with a special kind of school organization. A union free school district may establish a secondary school, called an academic department, or take over and manage a private academy, thereupon likewise termed an academic department. Common school districts seem to have no legal sanction for forming academic departments, but sometimes do so. A much larger division than the common or the union free school district is the school commissioner district—not including incorporated cities,—which usually has about the same boundary lines as a legislative assembly district. The executive officer is the school commissioner, who is popularly elected, and is not required to satisfy any educational test.

Since the state has the ultimate control over education, its

legislation largely determines what the schools are to be. In Massachusetts the chief influence of the state over education is in the conditions of granting state aid and in certain mandatory legislation, such as that requiring towns of five hundred families to maintain a high school. Dr. E. A. Snyder thinks that the tremendous development of rural secondary education is due very largely to legislation that equalizes the economic burdens and that reacts so as to greatly increase favorable public sentiment. The educational powers and duties vested by law in the State of Massachusetts are lodged in the hands of the State Board of Education, consisting of the governor, lieutenant-governor, and eight other persons appointed by the governor, one each year, for a term of eight years. The executive officers of the board are the secretary and four agents.[1] The control over local authorities is very small compared with the powers of many state superintendents and boards; the chief function of the Massachusetts Board of Education is "to advise, enlighten, and arouse, but not to compel."[2]

New York not only controls education thru mandatory and permissive legislation and thru conditions of state aid, but it

[1] Since this article was written, the legislature of Massachusetts has past a law making a change in the state educational authorities; our main conclusions are not altered, however. In accordance with an act of 1906 a commission on industrial education was appointed to foster and assist the establishment of agricultural and other industrial schools, which were aided by the state. By the act of 1909 this commission was consolidated with the state board of education, henceforth to be composed of nine uncompensated members, three of whom the governor, with the advice and consent of the council, is to appoint each year for a term of three years. The new board of education has the powers and duties that belonged to the former board of education and to the commission on industrial education before July, 1909. The present board of education appoints a commissioner of education, whose term is five years, but who is removable at any time by a two-thirds vote of the board. The intention seems to be to give the commissioner considerably more power than the secretary of the former board of education had. The board also appoints two deputy commissioners, and such other assistants or agents as may be necessary. This law is a manifestation of the centralizing tendency; and the wisdom of bringing industrial education under the direction of the state board of education can hardly be questioned.

[2] Whitten, *Public administration in Massachusetts*, p. 24.

also exercises important executive and judicial functions. The Board of Regents is composed of eleven members, one to be elected each year by the legislature for a term of eleven years. It exercises the authority of the University of the State of New York, which has great power over higher education. It also has certain legislative functions with reference to all the state educational activities, including elementary and secondary as well as higher education. The statutes and policies of the Board of Regents are executed by the Commissioner of Education, who is the general advisory and supervisory officer, as well as the final judicial authority in educational disputes. He advises the legislature and helps or hinders school bills. He directs the school commissioners, has charge of the twelve state normal schools, and manages the finances of the school system. At the close of the present term in 1910 the Commissioner will be elected by the Board of Regents for an indefinite term. Under the Commissioner are three assistant commissioners and many other officials, so that the State Education Department is very completely organized.

Within the last few years there has been a decided increase of state control in Massachusetts and New York. Just what is the present tendency is a little hard to determine. Altho Dr. Draper, the Commissioner of Education, has stated that he does not believe in too much state inspection or direction, the New York State Education Department does not seem inclined to give up any of its powers. In the Massachusetts reports for 1902-1903 and 1903-1904, Mr. Macdonald advocates a state high school; and in a later report we find the statement that the time is evidently ripe for a definite leadership by the central authority in Massachusetts, to shape and influence the trend and policy of the local high schools more directly.

Altho Massachusetts has always been a leader in setting a high educational standard before the country, as a state it has done very little in support of free public education. Less than 5 per cent. of its school revenues are derived from state taxation, and less than 2 per cent. from the permanent school funds, known as the Massachusetts School Fund, into which the state pays annually $100,000 until the principal shall be

$5,000,000. Other money appropriated by the state for the aid of education is taken from the treasury of the commonwealth. State aid to Massachusetts high schools may be classified under four heads: 1, direct subsidy; 2, reimbursement of tuition; 3, distribution of the income of the Massachusetts School Fund; 4, aid to superintendency unions. 1 and 2 benefit secondary education directly, while 3 and 4 apply to elementary as well as to secondary education.

1. *Direct subsidy.* A town of less than five hundred families that maintains a four-year high school receives annually $500 for the support of the school, provided that it has at least two teachers and keeps open for forty weeks, exclusive of vacations. But no town whose valuation per pupil in average membership in the public schools exceeds the corresponding average for the commonwealth, receives this subsidy; and the high school must have been approved by the State Board of Education.

2. *Payment of tuition.* Towns with five hundred families must maintain a high school. Those with less than five hundred families or householders, in which a public high school or its equivalent is not maintained, must pay the tuition of any resident child whose attendance at the high school of another town or city is approved by the school committee of his own town. Massachusetts was the first state in the Union, if not in the world, to compel all towns to provide free high school instruction. As this compulsion bore hard on many small and weak villages, there arose the policy of state reimbursement of high school tuition payments. Thus towns that have less than five hundred families and do not maintain a high school, receive one-half of the amount spent for tuition if their valuation is over $750,000, and the whole amount if their valuation is less than that sum.

3. *Distribution of the income of the Massachusetts School Fund.* Towns with a valuation of not over $500,000 receive $500 annually, and $75 besides if their rate of taxation is $18 or more on the thousand; towns with a valuation of $500,000 to $1,000,000 receive $300; towns with a valuation of $1,000,000 to $2,000,000 receive $150; and those with a valua-

tion of $2,000,000 to $2,500,000 receive $75. The rest of the income is distributed to towns in all of these four classes, in the proportion that their school tax forms of their whole tax. Certain conditions must be fulfilled, however; towns must comply, to the satisfaction of the State Board of Education, with all the school laws; and if having five hundred families, must maintain adequately equipped four-year high schools for *thirty-six* weeks, exclusive of vacations.[3]

4. *Aid to superintendency unions.* To each superintendency union—lack of space forbids a careful description of this interesting and suggestive system—Massachusetts pays annually the sum of $1,250, of which $750 goes toward the superintendent's salary and $500 toward the teachers' salaries in the towns forming the union.

The effect of the law of 1902, providing for state reimbursement of tuition and for state aid to certain approved high schools, has been to bring a free high school education within the reach of every boy and girl in Massachusetts. Of course, the cost of transportation, tho many towns provide free conveyance of pupils, or of board away from home, is too great for some families that might otherwise send their children to high school. Altho other causes have certainly been operating, the law has no doubt increased high school attendance. In the majority of cases the efficiency of high schools has greatly increased under the law of 1902 and the stimulating influence of the superintendents. Because a large direct subsidy is paid and tuition payments are reimbursed, the state educational authorities have checked the tendency to increase the number at the expense of the quality of high schools, by setting high standards of efficiency. Tuition rates were generally not unduly increased as a result of the law; for the average cost per pupil was $54.16 for 1906-1907, while the average tuition rate was only $42.07.[4]

Altho the law has on the whole been very beneficial, it

[3] Note the conflict in the law requiring towns of five hundred families to keep a high school for *forty* weeks; in smaller towns it must keep for *forty* weeks to receive the $500. *Cf.* 1 above.

[4] Massachusetts Report, 1906-7, xciii.

nevertheless has certain defects. Dr. Snyder questions the wisdom of compelling a high school to give a four-year course in order to receive help from the state; most high schools of the country have past thru the one, two, and three-year stages of development. New York aids academic departments that have a course of one year or more. Mr. Macdonald, the Massachusetts state agent in charge of secondary schools, has shown that the state assists small towns that do not maintain high schools far more than those that do.

Probably it is desirable to encourage more strongly the formation of high schools in small towns. If the local school can be made reasonably efficient, a strong argument for its maintenance is found in the fact that only about three-fifths as many students will go to an outside school as would attend a local one; there seem to be several good reasons why this is true in Massachusetts. Altho the strong outside secondary school can give better instruction than a small local institution, towns that have an option about maintaining a high school prefer to do so, except where the expense per pupil would be unreasonably great, or where a neighboring high school is easily accessible. The central educational authorities seem to make fairly good provision for preventing an inferior high school from receiving state aid. If, then, on the principle of the greatest good to the greatest number, it is granted that Massachusetts should still further encourage small towns to establish high schools, it might be well to increase the present grant of $500; for it is clear that in the average town of less than five hundred families it costs more to maintain a high school than to send secondary pupils elsewhere. Doubtless it is impossible fully to equalize the burdens of secondary education; but perhaps this ideal could be approached more nearly by making allowance, in granting state aid, for the size of permanent school funds as well as for the valuation of towns.

New York has several permanent funds, the income from which is made part of the general state appropriation for the support of schools. This money is distributed only to schools taking the state academic examinations; but these are mandatory only in the last two years of the course. Dr. Draper

has classified state aid to secondary education under four heads:

1. The quota of $100 to each non-sectarian school—the smallest item of state aid.

2. The state payment of tuition—second in amount.

3. The payment for library books, etc.—third in size.

4. The payment on the basis of attendance of academic students—the largest item.

1. Each city, union district, and non-sectarian academy that maintains an academic department according to the laws, ordinances, and regulations of the Regents receives $100 for each academic department.

2. The free tuition law is the most effective agency for improving the small high schools, which receive the bulk of that apportionment. The state pays the tuition of non-resident students from a district without a four-year curriculum, provided that these pupils have completed the course maintained by the district in which they live. Village high schools receiving such students must make no charge for tuition, other than the $20 paid by the state. On the other hand, city high schools may make their usual tuition charge; the difference between this and the $20 paid by the state is defrayed by the districts in which students reside. There are four grades of academic departments in New York: the junior, middle, senior, and high school grades, having one, two, three, and four years respectively. Each school may, however, give instruction one year beyond its grade, but the state does not pay the tuition of non-resident students who are beyond the grade of the school. Until very recently schools below the high school and senior grades were not permitted to receive state tuition pupils; this limitation led many junior and middle schools to extend their curriculum and equipment so as to meet the requirements of the two highest grades. The demand for a change in the provision finally became so strong that it was acceded to; and now academic departments of all grades may admit non-residents at state expense. Under the law the Commissioner lays down the conditions under which public secondary schools may receive these students; but "no school is compelled to

admit students under the provisions of this act" or is under any obligation to furnish free textbooks for them. He has accordingly prescribed that the school must be a union school, housed in a suitable building with laboratory facilities for individual instruction; it must maintain a standard of discipline and instruction satisfactory to the State Education Department; and it must include in its curriculum certain subjects prescribed for schools of various grades. The prerequisites that state tuition students must have, including the credentials that may be presented by them for entrance to an academic department, are oulined in detail.[5] In these ways the tuition law gives the state a powerful influence over secondary education.

3. Besides granting $100 annually to each non-sectarian secondary school and paying for the tuition of non-resident students, the state appropriates each year a sum for approved library books, etc. Each non-sectarian private academy receives an amount equal to that raised locally for books, pictures, and apparatus, but not over $250. City high schools are provided for in a similar way. A union free school district that has an academic department is given not over $268, and $2 additional for each teacher in the district.[6]

4. The fourth form of state aid is employed in the distribution of the balance of the state appropriation, which is apportioned on the basis of aggregate days' attendance of academic students. This amounts to over $3 per pupil.

About thirty small high schools are aided indirectly in another way. The state pays $800 toward the salary of a superintendent in a union free school district that has a population of at least 5,000.

It has been shown that state aid results in a powerful control over local high schools by the State Education Department, and more particularly by the Commissioner of Education. For small high schools as compared with large ones the $100 quota and the library grant are the most helpful, while the tuition law is the most important state agency for

[5] New York State Education Department Circular, June 12, 1908.

[6] Chapter 683, Session Laws of 1906, as cited in Snyder, 74.

their improvement. It gives instruction to unusually able and industrious students; it stimulates many small schools to improve their buildings and their laboratory facilities, to extend their curriculum, and to employ more teachers. Thus they give better educational advantages not only to non-residents, but to residents as well.[7]

The tuition law is of especial benefit to rural young people; for more than 10 per cent. of all the public secondary students in New York have their tuition paid and are therefore living in rural districts that do not maintain an academic department of four years. In 1906-1907, 77 per cent. of the money paid by the state for free tuition was to high schools in villages of less than 5,000. It might therefore seem that small towns maintaining academic departments are most benefited by this law. Such, however, is not the case; for tuition payments are anything but a financial benefit to most towns receiving them. The average annual cost of high school instruction in the State of New York was $80.87 in 1907. The actual per capita cost of high school instruction in the State of New York is, moreover, $3-$5 greater in villages than in cities, which may charge the difference between their usual tuition fee and the $20 paid by the state. Dr. Goodwin has pointed out that village schools with small classes are nevertheless anxious to meet the conditions prescribed for receiving non-resident students; for the accession of pupils enlarges and improves the schools without increasing the cost of instruction. Doubtless the last statement is not intended to be sweeping; for if a high school had reached the maximum enrollment that could be handled by the present teaching force, the addition of even a few pupils would necessitate the employment of an additional teacher. Certainly the admission of any considerable number of non-resident students would add materially to the running expenses. In most cases the higher requirements that would have to be met would increase the operating cost.

Altho the free tuition law has on the whole benefited secondary education thruout New York, it might be amended so that the burden of educational support would fall less heavily

[7] E. J. Goodwin, Educational Review, XXXV, 497.

upon the sparsely settled districts, which are least able to bear it. The villages would no doubt like to charge tuition equal to the whole cost of instruction. But since the larger part of the tuition would be paid by the districts in which students live, such an amendment would partially defeat the purpose of the law—to give free high school opportunities to rural boys and girls. Indeed, the result would probably be the formation of many small and inferior schools. The present law seems *a priori* to encourage sending pupils away to school rather than the establishment of local high schools; but the fact that the largest single portion is to villages of less than 2,000—rather than to those of 2,000-5,000, 5,000 and over, or cities—indicates that high schools are pretty well distributed even in thinly settled localities. Dr. Goodwin recently exprest the belief that the state should pay about $40 instead of $20. Possibly the state should even assume the whole cost of instruction of students from districts that are below a certain size, and do not maintain an academic department. This might be justified on the ground that the cities and larger towns, which would bear the brunt of the tuition payment, would ultimately derive its benefits thru the urban movement of population. A greater quota than the present one of $100 would help to offset the injustice of the tuition law.

Both New York and Massachusetts are doing considerable in aid of secondary education. For the year 1906-1907 the State of New York paid $552,189.77 for all secondary education, public and private, out of a total cost for these schools of $8,549,614.03, or 6.4 per cent. If it were possible for us to detach the figures for private academies, the resulting percentage would be a trifle larger, because the per capita cost is over twice as great in the academies as in the public high schools. In the same year Massachusetts aided public high schools—private academies are not assisted—to the extent of $56,613.94, out of a total cost of $2,761,426.97, or 2 per cent. The statistics for Massachusetts include only the direct state subsidy to high schools and the state payment of high school tuition; for the income of the Massachusetts School Fund and state aid to superintendency unions apply to both elementary

and high schools. But a further analysis of the figures at hand does not confirm the impression that New York as a state excels Massachusetts, relatively as well as absolutely, in the support of non-urban high schools. In the latter state the direct subsidy of $500 and the reimbursement of tuition manifestly affect only non-urban high schools and students. In New York, on the other hand, three out of the four items of state aid—payment of the $100 quota, for library books, apparatus, and pictures, and for attendance of academic students —go to public and private secondary schools in and outside of cities. As closely as the present writer is able to estimate, in New York the state aid to non-urban high schools is about 4.5 per cent. of the total cost of public secondary education, as compared with 2 per cent. in Massachusetts. On the assumption—not quite true, at least for New York—that the per capita cost is the same in and outside of cities of 8,000, about 9.5 per cent. of the total expenditures for non-urban high schools is paid by Massachusetts and about 15 per cent. by New York. But these figures have disregarded the income of the Massachusetts School Fund and the state aid to superintendency unions. Assuming roughly that secondary and elementary schools are benefited thereby in the proportion of their relative cost, we find that Massachusetts really aids her non-urban high schools about 19 per cent., as compared with 15 per cent. for New York. Leaving out tuition—a loss to any non-urban high school receiving it—it would appear that an academic school with an enrollment of forty is given about $320.50.[8] In a Massachusetts town of less than five hundred families, a high school with forty pupils would receive $500 besides considerable indirect aid from the school fund and from the $1,250 paid to each superintendency union. In the last analysis, then, our statistics indicate that there is not very much difference in the relative amount of state aid to non-urban high schools in Massachusetts and New York.

Both states might well extend more support, for many other states relatively exceed them in this respect. Certain communities are unable, even with a high rate of taxation, to give

[8] Snyder, 77.

their children nearly as good educational advantages as those enjoyed in more favored sections. Cities are usually best able to support secondary schools, which moreover cost less per pupil than in villages. It seems clear, therefore, that New York should devise some means whereby most if not all of its state aid would go to high schools outside of cities. Whether New York should assist private academies, which receive all forms of state aid except the tuition payment, is another question. Massachusetts does not do so.

State control over non-urban high schools is exercised chiefly thru conditions of state aid, thru supervision, and thru encouragement and suggestion. In addition New York greatly influences secondary schools by means of an institution that has no counterpart in Massachusetts. The following requirements must be met before an academic department can be admitted to the University of the State of New York: it must be a union school; it must not only give approved academic instruction for at least 175 days each year, but also approved preacademic education; it must provide adequate equipment and teaching force, schools of high school grade being required to have at least two teachers who devote some time to academic work; it must have a regular attendance of not less than five students holding a preliminary certificate or its accepted equivalent; it must have suitable apparatus and reference books.

The conditions under which state aid is granted have been discust in a preceding section. We have seen that in this way both states, and especially New York, have a large amount of control: Massachusetts chiefly thru the prescription of certain minimum, tho not detailed, requirements and thru approval by the state educational authorities; New York in these ways and also thru a state system of examinations.

From 1864 to 1900 the distribution of the New York academic funds was dependent on state examinations. The policy was changed in 1900, but returned to in 1906, the Regents asserting as the reason that inspection showed the work of students and teachers in schools taking examinations to be better than in those not taking them. The examinations are

mandatory only in the last two years of the course; and schools can, moreover, determine their requirements for promotion and graduation irrespective of the results in the state examinations; but for admission to city training schools or state normal schools it is necessary to have a certificate based upon the preliminary and academic examinations. These Regents examinations include the usual high school subjects; the particular field covered in each is outlined in the *Academic syllabus,* which is revised every five years with the help of a committee of high school and college educators. The papers are set by the inspectors and by members of the Examinations Division, and are also corrected by the State Education Department. Thus the state largely controls secondary admission requirements and courses of study.

The Massachusetts State Board of Education requires high schools to be approved for receiving the $500 grant; for receiving students for whom the state pays one-half or the entire tuition; and for certification so that their graduates may be admitted to the Massachusetts normal schools without examination. This approval necessitates some kind of state supervision or inspection, which is performed by one of the state agents. Unfortunately he is unable to give all of his time to that phase of his work. He visits a high school as early in the year as possible, and makes a record of its organization, accommodations, equipment, course of study, and quality of work. When possible or desirable, these visits are followed by conferences with teachers and school officials, "at which commendations, criticisms, and suggestions" are plainly stated and generally well received.

New York has much more authority than any other state in the supervision of instruction. The State Education Department has fourteen inspectors who visit, inspect, and report upon high schools and academies. The inspector gets information about the school grounds and buildings, including their care, sanitation, and adequacy. He also inspects the library and laboratory equipment, the course of study, the daily program, the teachers, and in fact all matters of school organization, discipline, and instruction. Afterwards the in-

spector confers with the principal and teachers, and with the superintendent and board of education. On the basis of the inspector's written report the Chief of the Inspections Division corresponds with the local school authorities. As a result school buildings are often repaired and enlarged, and new ones constructed. Courses of study are revised, boards of education are incited to greater activity, principals and teachers stimulated to greater efficiency, and incompetent and unfaithful teachers removed. As Dr. Goodwin remarks, the usefulness of this inspection is greater in small schools that have no systematic supervision, and that are under the charge of comparatively inexperienced teachers.

It is evident that New York, with its fourteen inspectors of secondary schools, can supervise them much more thoroly than is possible in Massachusetts, where, in a recent year, one agent visited 112 high schools with a total of 450 teachers. Supervision in Massachusetts is chiefly inspection to see whether high schools have come up to the standard required for approval. New York at least undertakes to do constructive supervision. It must be remembered, however, that Massachusetts has a highly organized and effective system of local professional supervision, while in practically all of the smaller places in New York there is no local supervision worthy of the name.

Encouragement and suggestion are necessarily included in state supervision. They are, indeed, the chief functions of the Massachusetts Board of Education. This body requires all public schools to furnish statistics and other data to the secretary of the board. On its part the board disseminates information and offers suggestions. The secretary and agents make many educational addresses, especially at state-conducted teachers' institutes. The high school section at these meetings is evidently in charge of Mr. Macdonald, who has tried to make the "instruction definite and practical," and to get experienced educators as instructors. Letters of commendation from school superintendents and committees show that the institutes have been in a measure successful.

State encouragement and advice seem to play a much less im-

portant part in New York. The state, however, usually holds an annual teachers' institute in every school commissioner district. The schools are closed during institute week, and attendance is compulsory but compensated. The sections, elementary and advanced, are led by institute conductors and instructors, whom the State Education Department regularly employs. In the opinion of Dr. Draper, the arrangement serves its purpose as well as any system in rural districts that are without regular supervision by professional superintendents.

The state affects non-urban high schools in other ways than thru conditions of state aid, thru supervision, and thru encouragement and suggestion. The annual reports of the New York State Education Department are distributed to all schools belonging to the University of the State of New York; and the reports and other printed material of the Massachusetts Board of Education are sent to every town. New York State licenses secondary teachers. The Massachusetts State Board of Education has no compulsory authority over the certification of teachers, but school committees may accept normal school diplomas and the teachers' certificates granted by the state board. Both states do something in the way of training secondary teachers. The New York Commissioner of Education is the final judicial authority in school matters. The state educational officials of Massachusetts have no legal power to decide appeals or to settle disputes between school officials; but the secretary or agents are often asked to arbitrate in school questions. The Board of Education examines union superintendents and thus affects high schools indirectly. Finally, the board is the professional adviser of the legislature—important, since central control is largely legislative.

No definite statement as to which state excels in its non-urban high schools can be made simply on the basis of the relation of the state to rural secondary education. Points of strength and weakness can, however, be indicated. The Regents' examinations tend to brace up inferior secondary schools; and under the system the graduate of an obscure high school is on a par with the graduate of a large city high school when

he seeks admission to a distant college. On the other hand, much of the work is reduced to mere preparation for examinations, which are generally regarded as pernicious when used as the chief test of ability and achievement. New York has a close and effective control over all grades of public and private secondary schools; but there is considerable opposition in some quarters to the extreme centralization of the New York educational system. The Massachusetts system is much the more democratic and much closer to the people. This responsiveness to the public pulse has many advantages; but it may be an element of weakness in a community with little wealth and with low educational ideals. Massachusetts holds all four-year high schools up to a certain standard, but seems to furnish no guarantee for the efficiency of other secondary schools.

Secondary education in New York and Massachusetts has much of significance for other states. The practise of consolidating two or more districts or towns that are individually too weak to support a high school is to be commended. In some states the state superintendent and board of education are little more than collectors of statistics and dispensers of money. In Massachusetts and New York the state educational authorities have a powerful influence for good upon all non-urban high schools. They not only hold backward communities up to definite required standards, but lead the way in educational progress.

Alden H. Abbott

Yreka, Cal.

IV

PRACTICAL EDUCATION FOR INDUSTRIAL WORKERS

Education adapted to meet the daily needs of the industrial worker is coming to be as important as the education of the child.

We should bear in mind that the average length of a boy's school life until recently was only about four years, and that was before he was 12 years of age. Then again we are not sure that he received this amount of education, as no systematic method was adopted till recently to keep the boy at school. Consequently these boys who are now the industrial workers have received little, if any, more education than that obtained during these four years.

With the development of the industries, which has been very rapid, have appeared new demands for more men, each with larger ideas, greater capacity, and more training. At one time the shop and mill was a training school for workers, but it is no longer so. The old apprenticeship system is dead, and under the specialized condition of modern industries, a worker knows but one part of the numerous industrial operations. He works day by day at the same kind of work and under precisely the same condition,—the operation and the machine usually requiring little thought and ingenuity. The average worker knows nothing about the machine itself or the operations that precede and follow his own, and very little about the raw materials that are used. Under such routine work and circumstances the industrial worker loses the habit of thinking, since no demand is made on him for thought. As a result of having had no systematic demand for his earlier education, by the time the worker enters manhood, or is ready to be promoted to a higher position, he is likely to forget what schooling he has had before the age of 12 or 14, and is apt to

be intellectually less efficient than when he left school. Hence, it is not surprizing that the average industrial worker in this country has neither the power to advance industrially, nor to compete with the workers of Great Britain and the Continent. European countries are far in advance of America along the lines of industrial training. Every European industrial city of any size has a technical school which the operative may attend and receive technical instruction and shop practise in his trade. The result is that the most successful workers, foremen, and overseers of our industries are foreign-born men, educated in these schools; while the American-born workers are obliged to remain in the lowest-paid positions.

Recent investigations show that the average German mechanic is the best trained workman in the world, not because he is more intelligent, but because an important part of his schooling prepares him specifically for his trade. An employer of labor and student of industrial life in America recently declared before the National Education Association that already 50 per cent. of America's skilled mechanics are born and trained in foreign countries. Later investigations show that 98 per cent. of the foremen, bosses, etc., in the manufactories of New York State were educated across the water.

The heart of Germany's system of industrial education is the continuation school, and this is not an outside movement grafted to the school system in an overzealous endeavor to educate the masses, as some educators would have us believe, but has a direct connection with the common school on one hand, and with industrial activities on the other.

Germany's continuation schools are chiefly of two types: those fitting for the requirements of commercial life, and those directly planned to meet the needs of shops, the factories, the local industries, and the trades. The industrial and commercial schools differ from our industrial and commercial schools in that their course in metal and wood shop practise, textile work, etc., can not be taken alone. There must be added for nearly or quite one-half the course technical processes, practises, and mathematics of that branch. Similarly the business processes, including such subjects as production, markets,

distribution, consumption of the product, price fluctuations, etc., to all their commercial courses. The object of all this is to develop industrial and commercial intelligence rather than create merely mechanical skill.

In Massachusetts while more than 80 per cent. of the boys 15 years of age have dropt out of school entirely, and are receiving no instruction in the theory or practise of their trade, in Germany the practical schooling of boys 14 to 16 years of age practically begins and often continues two, three, or more years, and their attendance at particular kinds of industrial schools suited to the occupations they have selected, is rigidly required. In Berlin, the model city of Germany in matters of education, 55 per cent. of the boys between 14 and 18 attend such schools. Yet in America, with all its magnificent systems of public schools, only one-third of one per cent. of all the boys and young men between 15 and 24 years of age are receiving any definite instruction in the sciences and arts which bear directly on their occupations.

There is accordingly a large demand growing out of everyday needs for educational opportunities not afforded by our existing public school system,—a demand made by those deficient in early education who are desirous of making up this deficiency, and by those who seek to supplement their acquired skill with technical training that will lead to advancement and increased earning power.

There is no question that the most ambitious workers in every industry will take advantage thru evening or day study of every opportunity for securing a practical education. The success of the classes of the Y. M. C. A., the textile schools, and the correspondence schools bear witness to this statement. In the city of Lawrence, before the industrial school opened, over 140 workers traveled 18 miles to attend an evening textile school; going directly from the mill and deferring their evening meal till they returned home at midnight. In the same city over 2,000 workers are enrolled in the correspondence school; paying from forty dollars to one hundred dollars for a course. The following statement shows how unsuccessful and difficult instruction by correspondence is: The

International Correspondence School having admitted in an article in the *American machinist* that but 2.6 per cent. of the students have been awarded a certificate or diploma. The vast majority of men enrolling are soon discouraged, and frequently lose faith in their work.

The question may be asked, "Are not the existing evening schools meeting the demands of this kind of education?" In order to enter our present evening high or technical schools the applicant must be a graduate of a grammar school or pass an examination equivalent to the work of the ninth grade. As I said above, very few of our industrial workers are graduates from the grammar schools, and those who are not, can not pass the entrance examination. Most of the students in the existing technical schools are superintendents, firemen, and overseers of shops and factories. So there is a need of an educational institution to meet the needs of the industrial workers. Some educators may say, as the principal of the textile school said to me, "Let these workers go to the evening elementary school until they are qualified to pass the entrance examination to the technical or evening high schools."

A former superintendent of public schools of Springfield, Mass., one of the foremost educators of the country, and one whose progressiveness is shown by the introduction of industrial training into public evening schools, sought to discover why mechanics, mill workers, etc., did not attend our present evening schools. One reason assigned was as follows:—Instruction in both the evening elementary and high schools usually draws a large number of people who are relatively young,—that is, boys and girls from 14 to 15 up to 25 years. Older mechanics and mill workers, who may, perhaps, have some reputation in their trade, and who wish to perfect themselves in certain technical lines, do not wish to be grouped with persons of that age, feeling that such persons, having come recently from the public schools, are able to answer questions better, use English better, and appear to better advantage than their older associates. Mature men are often sensitive about the comparisons which the younger members of the class are apt to make at their expense.

A second reason was that the public evening schools usually aim at teaching a subject quite systematically and modeled (possibly too much so) after the day schools. Industrial workers have intensely practical aims when they come to an evening school, and are unwilling to study systematically an entire subject; they demand that the instruction shall lead directly to the specific things which they want to know. If they are put into classes in which they are obliged to spend a month or more on preliminary work, the value of which they do not immediately discover, they will not attend.

So it is clear as the result of this investigation, that the present evening technical and evening elementary and high schools can not meet the educational needs of the industrial worker.

The purpose of most of our evening technical schools is to give not only the highest possible instruction in science, but the application of this knowledge to the operations of the industry. The evening courses are the same as the corresponding day courses. What is needed is a school lower in its entrance requirements and giving instruction of a character more directly vocational or concerned with the daily needs of the worker. This idea has been carried out in the Lawrence Industrial School. It was established two years ago under the Industrial School Act. The school is free. Textbooks are furnished free. These books are edited by the instructors, and printed by the Commission on Industrial Education. The problems, drawings and notes are problems, drawings and notes coming from the mill and shops, so that the school keeps in touch with the industries. These notes and problems are obtained by means of a question box placed in the classrooms. The instructors are practical men working in the industries and conversant with the needs of the operators.

Our evening instruction appeals to the student immediately at the beginning of his work. For example, a young machinist had received a reprimand from his foreman because he could not read a working drawing with sufficient skill to do properly his daily work. He enrolled two years ago in the mechanical drawing course in the public evening drawing school, thinking this course would meet his deficiency. He found that the first

two lessons were concerned with lettering plates, the next three with drawing straight and curved lines and the handling of instruments, and that the remainder of the term was spent on the projection of points, lines, surfaces, and solids. During all this time he was receiving in his daily work the same reprimands, and was therefore debating in his own mind the value of the drawing course. It is undoubtedly true that the drawing course this teacher had outlined in the drawing school is a proper one for teaching mechanical drawing for those who are to be draftsmen, but the average apprentice machinist as well as this young man does not see the direct application of this instruction to his work. He enrolled in the drawing school for a definite purpose. To be sure it was a narrow one, but nevertheless it had economic value to him. As the result of this young machinist's experience the principal of the Industrial School immediately offered a course in blue print reading and arithmetic for machinists. This is one of the most popular courses in the school.

The first lesson begins with some elementary instruction in the reading of simple drawings; to teach him in five lessons where to look for the dimensions denoting length, breadth, and thickness; to show him the principles of simple sectional drawings and have him comprehend the laying out of holes for drilling. Instead of leaving school at the fifth lesson, with no instruction which appealed to him, the student has received enough in those five lessons to fit him to meet the needs of his foreman, and is anxious to continue and receive the more definite and thoro instruction in the theory of mechanical drawing, so as to be able to make sketches of machines and parts by means of a ruler and compass. It is not the aim of this course to teach the students to make pretty picture drawings.

The instruction in the various branches of mathematics are adapted to meet the needs of the mill operative, the machinist, and the steam engineer. The terms used in the classroom savor of the shop and mill. For example, how to find the heating capacity of a boiler does not appeal to the weaver in the mill. On the other hand, how to find the size of pulley for a certain loom does not awaken the interest in the steam en-

gineer as much as the problem involving the same operations dealing with a problem in the boiler room.

All our students are classified into vocational classes according to their trade. For example, there is a class in arithmetic for engineers and a separate class in the same subject for boiler firemen. Again, the textile designers have a class in arithmetic called cloth calculations. This idea carries out the plan of the old workingman's guilds. Each guild was formed for the purpose of social intercourse and mental stimulus. Each trade had its own guild. The daily trade experiences of each member became the property of all members. Discussion relating to the practises of their chosen trade occupied their attention. So today working men have common trade interests. Our evening students are grouped according to their occupations, and in this way have an opportunity to talk over these interests. The teacher acts as a leader and draws out the students in telling their trade experiences, and thru the expression of these various opinions the work practical solution of the particular problem at hand is obtained. It is difficult to get students to recite and express themselves at the blackboard. A free discussion of the point at issue makes the student lose his self-consciousness, and before he is aware of it, he is at the board illustrating his particular method of solution. Of course, such discussions are under the wise guidance of the teacher.

Provision is made for students who can not attend but once or twice a week. It is quite common for students to stay away because they can not attend "regularly." This applies to a great many textile workers. In prosperous times the mills are run evenings, and the employed are expected to work overtime. But they can usually get away for one night in the week during such times. They can not always tell definitely what nights they will be called upon to work. Students who are working overtime are allowed to attend any night during the week after the work is fairly started. Such a plan is feasible. Boiler firemen alternate in working day and night. A fireman who works days this week will work nights next week, and so on. The week he works nights he attends the day classes, and the next week he attends the evening classes.

A certificate is awarded each person completing a course. Day classes are formed for the convenience of those who are unable to attend the evening sessions.

The school is in a position to compete with any of its kind, over $32,000 being represented in its up-to-date woolen, worsted, cotton, and steam machinery.

Classes in the following subjects will be formed for both day and evening pupils: Woolen and worsted spinning, woolen and worsted weaving, woolen and worsted finishing, dobby and jacquard weaving, cotton spinning, cotton weaving, loomfixing and loom calculations, mill arithmetic and mill book-keeping, elementary and advanced textile designs, elementary and advanced cloth calculations, industrial and commercial electricity, steam engineering for firemen, steam engineering for engineers, arithmetic for firemen and engineers, blue print reading, machine drawing and arithmetic for machinists, shop arithmetic, industrial and commercial chemistry, experimental and practical dyeing, and dressmaking for working girls.

The courses of woolen and worsted manufacturing are arranged to meet the daily needs of those working in these industries. Instruction is given in all the various processes employed in adapting the wool fiber to cloth; namely,—sorting, scouring, carding, combing, spinning, designing, weaving, dyeing, and finishing.

COTTON COURSE

The cotton courses are designed to meet the needs of the men working in these industries;—to make better workers of them and to train them to think and take an interest in their work. If sufficient numbers register, classes will be formed in picking, carding, drawing, roving, spinning, combing, designing, and weaving. In connection with this work a course in knitting is offered. The equipment of the department is of the best up-to-date cotton machinery.

EXPERIMENTAL LABORATORY, DYE HOUSE, AND INDUSTRIAL CHEMICAL LABORATORY

This work is carried on in a building located in an ideal spot for a dye house. It is situated on the banks of the Merrimack

just above the falls, away from the classrooms and dwellings. It is modeled after one of the most practical experimental laboratories in the country.

Besides lectures and recitations upon dyeing, students will perform careful and systematic experiments as to the nature of the various dyestuffs and mordants, their coloring properties, their action under various circumstances, and conditions under which they give the best results. The more representative dyestuffs of each class will be applied to cotton, wool, and silk, and each student will be obliged to enter in an especially arranged sample book a specimen of each of his dye trials, with full particulars as to conditions of experiment, percentage of compounds used, time, temperature of dye bath, etc.

For convenience and economy most of the dye trials will be made upon small skeins of swatches of the required material, but from time to time students will be required to dye larger quantities, in full-sized dyeing machines under conditions of a practical dye house.

By use of a small printing machine the principles of calico printing are illustrated, and the practical side of the subject will be studied with dyeing machines, vats, etc. It will be the constant endeavor of those in charge to impart such information of a theoretical character as will be of value in the operation of a dye house and will make a better worker of the student.

In industrial chemistry particular attention is paid to those subjects which are of especial interest to the textile worker, as oils, soaps, gas, and the coal-tar industry; and the manufacture of important chemical compounds, such as the common acids and alkalies, bleaching powder, various mordants, etc. Cabinets containing the various dyestuffs, chemicals, and by-products of wool grease are on exhibition in the dye house, and students have an opportunity to study them.

STEAM ENGINEERING AND ELECTRICITY

One of the strongest departments of the school is the course in steam engineering and electricity. The course consists of

lectures by practical men for engineers, firemen, etc., and laboratory practise in steam engineering. The steam engineering laboratory is one of the best equipped laboratories in the country, consisting of different types of boilers, steam heating apparatus with appendages, different pumps in sections, sectional valves and gages, all the boiler accessories, steam engines, generator and many other machines. In addition to all these, pictures, blue prints and sketches of the above apparatus and other machines, are on the wall for careful study. All the lectures, classes, and demonstrations are carefully planned to meet the needs of those working in the trades. Classes are formed afternoons for those working nights, and evening sessions are conducted for those laboring days. In addition to evening and day classes for those already at work, provision is made for day classes for boys and girls between fourteen and seventeen who are not at work. The course is three years, and is devoted to the three following distinct courses: Textile arts for boys, mechanic arts for boys, and the domestic arts for girls. A diploma will be awarded to pupils who have past the work satisfactorily.

The textile arts will give a training in the simple operations and theory underlying all the occupations of the textile industries in addition to a sound academic and business training.

The mechanic arts will give a training in the fundamental operations and theory underlying the great number of occupations of the wood and metal trades in addition to a sound academic and business training.

The domestic arts course will give a training in the branches of knowledge and the trades that are most useful to girls in gaining a livelihood, and also preparation for both business and home life.

The courses of study are planned with the following conditions in mind: That while the school will offer a three years' course in the useful arts, it recognizes the fact that many children can not afford to give so much time to education beyond fourteen years of age. Hence the work is planned so that the work of each year is, as far as it goes, complete in itself, that nothing is taught on the theory that it will be of value at some

later period in the course. So that at whatever time the pupil leaves school he will have had, up to that time, the best preparation which the school could give.

It is not a trade school to fit pupils to be spinners, carpenters, or dressmakers only, but a school to open up the avenues to the industries and trades, and to give a training that carries the skilled worker on to unlimited earning power.

The school will give a practical education to the great mass of children who will be obliged to work in either the industrial or commercial fields, and will include:

1. Children whose parents now send them to high school and who do work in the classics and literary branches after a fashion, but who can be roused and educated along the line of practical education. It is for the child who does not like "to study," but who wants to do things, who wants to see and know the use of things, who is of a practical rather than the academic mind.

2. Children whose parents do not feel that they can afford to give more time to the child for purely academic work, yet would feel they could afford a child a further education if it would aid him in getting started in some form of skilled industrial work.

The school is parallel to the existing high school and has the same school hours and term, but is different in its course of study, as the high school is dominated by the college while the industrial school is not, but is influenced by the industrial and educational needs of the working people.

COURSES OF STUDY

1. TEXTILE ARTS—BOYS

FIRST YEAR	SECOND YEAR	THIRD YEAR
Business English, mill arithmetic and manufacturing bookkeeping, industrial history, mechanics and electricity, raw material, carding and spinning, weaving and warp preparation, designing.	Business English, mill mathematics and manufacturing bookkeeping, industrial chemistry, industrial history, carding and spinning, weaving and warp preparation, fabric analysis and designing.	Business English, mill mathematics and bookkeeping, industrial chemistry, industrial history, carding and spinning, weaving and warp preparation, fabric analysis, designing, dyeing and finishing.

2. MECHANICAL ARTS—BOYS

FIRST YEAR	SECOND YEAR	THIRD YEAR
Shop and business English, shop arithmetic and manufacturing bookkeeping, industrial history, mechanics and electricity, study of wood and iron and the process they pass thru, blue print reading and machine-sketching.	Shop and business English, shop mathematics and manufacturing bookkeeping, industrial history, mechanics and electricity, mechanical drafting, machine sketching, study of the processes of iron.	Shop and business English, shop mathematics, industrial history, mechanical drafting, machine shop practise.

3. DOMESTIC ARTS—GIRLS

FIRST YEAR	SECOND YEAR	THIRD YEAR
Business English, practical arithmetic and bookkeeping, industrial history, dressmaking and dressmaking designs.	Business English, practical arithmetic and bookkeeping, industrial history, dressmaking, cooking and millinery.	Practical and business English, business arithmetic, industrial history, dressmaking, millinery.

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V

THE CHURCH AND THE COLLEGE

In a very interesting address before the Educational Conference of the Southern Methodist Episcopal Church, President Pritchett of the Carnegie Foundation for the Advancement of Teaching, has discust the relation of the Christian denominations to the colleges. This address, appearing in the EDUCATIONAL REVIEW, published by the Carnegie Foundation, and commented upon by such a journal as *The Nation,* deserves more than passing notice on the part of all devoted to the denominational college.

In its purpose of advancing teaching and raising the standard of education, the Carnegie Foundation, which does not aid strictly denominational colleges, has been compelled to state why it passes by the church colleges. The elimination of the church college from the approved list has necessarily led to a discussion of the denominational college.

The first position which may be taken by a denomination toward the college is thus stated by President Pritchett: "A church may frankly say that, in order to carry out its legitimate work and advance its cause, it must control and direct a certain number of institutions of higher learning in which men may grow up trained in its ideals and devoted to its service." The motives which lie back of this are described as the strong desire to propagate the faith for which the denomination stands, and to train denominational leaders. But it is questioned whether what the Church could do formerly it can accomplish at the present thru general education. The cause of the Church has been weakened because it has been induced to add colleges by adopting institutions that sought the Church to gain a constituency. Education, it is further claimed, ought not to be at present a great work of the Church, nor one of the agencies to which it should direct its energy.

In the whole discussion summed up in these leading thoughts, it is supposed that the denominational motive is all-controlling, and that a denominational college exists largely only for its specific church. President Pritchett believes that the average American citizen of religious life and religious aspirations is not wholly in sympathy with such a church college, but it is not sufficiently recognized that the denominational college has been influenced by a wide ideal, and that it combines its historic denominational connection with its larger educational purpose.

It is true that the statement is made: "The wish to bring religious influence into college life is also one which has played a part in inducing organized bodies of Christians to undertake the control and support of colleges. How far this motive has had influence, it is difficult to say." But over against this partial admission, denominational rivalry is made a much larger element than the motive of religious education, and in this assertion full justice is not done to the controlling religious ideal of the denominational college. The weakness of the denominational college is shown in a stronger light than its ruling purpose. No doubt the lack of a true appreciation of just what Christian education is, and what in various ways the church college is doing for Christian education, is responsible for this whole attitude. It is assumed that Christian education in its highest and broadest form is found outside of the church college. And as a basis for the claim that Christian education can be carried on without the medium of a church college, President Pritchett attempts the following definition of Christian education:

"Much confusion has heretofore existed as to just what is meant by Christian education—a confusion which arises partly out of the almost universal failure to discriminate between religion and church membership, and partly out of a lack of appreciation of the intellectual strivings of the college and university student.

"The essentials of religion are the same whether men belong to one religious organization or another. Religion is a life springing up in the human soul which blossoms into forgetfulness of self in the service of God and men. This life

exists without any reference to the denominational or ecclesiastical definition of it. It has, in fact, to this formal expression much the same relation that the stars have to the science of astronomy, or that the flowers have to botany, or that the chemical reactions have to the textbooks in chemistry. Now shall Christian education mean the effort to bring into the minds and into the lives of students the conception of religion as a life, or shall it mean the presentation of the forms of worship of a particular denomination and the claims of a particular view of truth? And shall the methods by which these elemental relations are to be brought to the attention of college boys be those of the congregation, of the Sunday school, of the revival, or shall they take account of the intellectual processes thru which the student is developing? Shall they be planned to appeal more directly to the emotions or to the reason?"

In the endeavor to draw a distinction between religion and church membership, an unreal separation is effected. For the life of religion—and religion here means concretely the Christion religion—has been carried on and perpetuated by the agency of the Church, despite her weaknesses and aberrations. It is the Church and her leaders that have stood for religious ideals which have stimulated others to accept them. It is the Church which has handed down the Bible, and thru whose activity religion has been advanced in the world. Consequently, it is an unhistorical and academic distinction which practically tears apart religion and church membership. It is true that outward church membership of itself is no guarantee of religion, but the non-appreciation of what the Church offers is no proof that she is not the purveyor of religion, and that consequently church membership is not a help in the religious life.

Again, the conception of the essentials of religion, as independent of religious organization, is misleading. It rests, perhaps unconsciously, on the idea that the religious fundamentals live on, apart from, and without a religious organization. The historical fact is, that only thru definite Christian bodies have the essentials been handed down, and the thought of an ex-

istence of them as separate from the actual life of any individual organization, is an academic construction. In the question of essentials, it is generally the mistaken attitude of today to decide upon them by taking the minimum of truth and by making a wide generalization to include as many churches as possible. The real method ought rather to be to determine what the original sources and documents contain, and how these have been historically appropriated. This will result in a much larger body of essentials than is found by the method of reducing them to suit the men whose Christianity is so emaciated that it is almost nothing but theism. Most churches hold to a much larger and fuller conception of religious essentials than simply the idea of God and the moral excellence of Jesus, which is about all that is imprest upon men in the undenominational institution, if there be any direct reference made in the teaching of the college. Therefore it is not the actual statement of the case to speak of the sameness of religious essentials when application is made to all colleges.

Religion is defined as "a life springing up in the human soul which blossoms into forgetfulness of self in the service of God and men," and is supposed to exist without reference to the denominational attitude. This definition is an unpsychological and unhistorical assertion. Religion is assumed to be a life which is purely activity, for I take it that self-forgetfulness is regarded as the way towards service, so that essentially religion is service. Now it is true that action is the end of life, but behind action lie ideas, feelings, motives. And so wherever we may place the main accent in our analysis of religion, if it be regarded in its psychological reality, it must have thoughts as well as feelings, motives as well as attitudes. How can I forget self in the service of God and man without some definite thought as to what God and man is? Why should I serve and how can I best serve? Must these necessary questions not lead back to some ideals of the intellect? Does not the man who makes religion service unconsciously presuppose intellectual convictions? No matter how few may be the creedal elements of my Christian life, they can never be absent. There is no religion without conviction, and convic-

tion implies some relation to the truth, not simply as feeling or willing, but also as intellectual apprehension. Christ, thru whom, as reported by John, the thought of religion as life, has actually come to us, combines with the emphasis of life, truth. He claims to be the way, the truth, and the life. He is not life simply as service apart from truth. Consequently, when we take the conception of religion as life, which we owe to Christ, it is well to know what He said such life was. And it is in the appropriation of Christ, and in consonance with the experience of what He is to man as an individual and for the race, that close thinkers have felt it necessary to combine truth with life. Because, therefore, truth is a part of the religious life, and because this truth has taken shape and come to historical expression in the various denominations, they stand for the necessity of some definite teaching and truth. It is purely an assumption to say that this life exists apart from denominational definition. Denominational definition may emphasize certain aspects of it, may even misinterpret certain parts of it; but, nevertheless, this life, as truth for the intellect, as truth for the highest emotions, as truth for the noblest service, is actually carried on and forwarded thru the agency of the various denominations. If, therefore, there is a value in religion for education, and if, despite their variations, the denominations are the bearers of this life, then they can best undertake religious education.

It is a mistake to suppose that the denominational college lives religiously to present forms of worship, methods of conversion, Sunday school instruction, peculiar views of truth, and that its schemes of teaching religion generally contravene the intellectual ideals of the young students, or fail to meet their honest inquiries. While there may be some teachers of religion in the denominational colleges who misinterpret their places, yet most are doing what the undenominational college never does, that is, leading the growing mind into the larger conceptions of religious truth. They are teaching men to put away childish things in their thinking about religion. In the very large college not under religious control, there is mostly not even a required course in ethics. Only incidentally, but not

in a systematic way, are the students taught the great moral relations, in duty, virtue, and the highest good. Consequently, many students live under the impression that there is no systematic and harmonious relation in moral facts. It is the average church college which, apart from any religious teaching, is keeping alive the practise of making men think in their more mature stage of moral questions by direct teaching and discussion. And thus, in the same way, religion is mostly taught in its great problems and implications. Whatever denominational weakness there is does not detract from the fundamental value of religious instruction. The breadth of college teaching generally avoids that, for it usually passes from a delineation of theism to the great historical and religious claims of Christianity. It is the church college which does not allow non-Christian teachers to promulgate views that are subversive of all religion. The cry which was uttered in a meeting of college leaders at the seventy-fifth anniversary of Haverford College by Professor George Wharton Pepper, that men ought not to be allowed to go astray in the highest issues of life for want of guidance, has been answered by the denominational college. It puts before men the great questions, the great duties of the present, and also the great assertions of religion.

Because the denominational college takes this attitude, it can claim what President Pritchett asserts as the second possible position, namely the right of the Church to control the colleges on the ground of "its fitness and efficiency as an educational agency." The educational right of the denominational college rests upon the place which religion has in forming character. If education means simply efficient methods of imparting knowledge, high intellectual standards of scholarship, excellent administration, and if the finality is not character, and if in developing character religion is not most powerful, then the church college has no claim to existence, and the sooner it closes, the more effectively a great waste will be done away with. But if religion is a necessary factor in full and harmonious education, then the denominational college can claim its place in the educational work with strong assurance. The

church college has greater religious power because it adds to the free association among young men the definite teaching of religion; its professors stand for something, and they have a motive to present. It is the very absence of a strong religious and moral motive which is being felt in much present-day education. But the denominational college has great opportunity to present the controlling motive because it adds to the usual duties of men the highest sanction, and hallows all relation to men by man's faith in God.

Furthermore, because religious influence is usually brought to bear upon young men thru the teaching of the Bible, the denominational college makes for greater literary efficiency of all its students. It dares to interpret not only the body, but the soul of Biblical history and truth. It does for all its students what is done for some by the general literary course of colleges, in teaching the Bible as literature. But it accomplishes more, in that not simply the linguistic form and the outward content are noted, but the inner power is permitted to have its influence.

In the presentation of religion the denominational college also leads many, who may not take any philosophical course, to consider some of the highest problems of existence, and to adjust laws of nature and postulates of science to the implications of God, immortality, righteousness, and freedom. Many church colleges still retain, even apart from religious instruction, a required philosophical course, so that the student may be led to trace facts back to first principles, and to distinguish in every science between data and inferences. It thus makes clearer and more balanced thinkers. But even when the philosophical course is not obligatory, religious instruction supplies some of the training gained in thinking about great masses of facts from great unifying principles.

There is also in religion a wonderful cultural power. It refines and elevates thoughts, feelings, and will. In such uplift there is none of the danger of mere estheticism, which often fails to make strong men thru its cultivation of admiration for beauty alone in literature, fine arts, and music. Religion makes deeply sensitive as well as strongly active men.

Because it is thus the most effective cultural power, it fulfils the cultural longings of other specific culture studies. Thru it, also, men can understand some of the most wonderful creations of all art, whether in stone, on canvas, or in tone. It is the key to the whole art of the Middle Ages. But as this art is bound up with the life and history of the Middle Ages, there can be no full understanding of this history without a realization of the religious motive. Still less can the dawn of modern history be rightly appreciated in the movement of the Reformation, unless the great intellectual, cultural, economic, social, and political changes are seen emanating from the upheaval which the religious experience, leading to freedom of conscience, brought about. Consequently, for these reasons and others, which might be named, the education that includes religion furnishes a larger key to unlock the history of the past to explain the present, than the education which neglects this fundamental fact in human life and history.

Now it may be admitted that sometimes there is a departure from the highest ideals and practises in the denominational college. Where are ideals fully carried out? It may also be true that there has at times been a lack of making all the activities and life of the church college consonant with its profession; that there have been sins of omission and commission in methods. In athletics, sins are to be named that obtain in colleges where the Christian motive is not directly emphasized. And if such wrongs are constant, a denominational college has lost its savor and is only worth being cast out and trodden underfoot. But, nevertheless, the failure to realize the ideal is no disproof of the ideal. It is entirely true that there has sometimes crept in a mechanical conception of religious education, and that there has been an educational insincerity in the claims of some denominational colleges. President Pritchett is entirely right when, in this respect, he calls those that are sinners to repentance. It is a shame and a denial of the claim of its fundamental religious attitude for a college to aspire to do what it can not do rather than to be content with the name of academy; and it is equally wrong when a legitimate college inflates itself with the name of university. However, the de-

nominational college has not been the only sinner in this matter. It is also true that sometimes churches have not valued their own institutions, without which their continuance would not have been possible. But today greater activity is evident, and equipment is being brought up to modern requirements. It is a mistake, as all admit, when a church has more colleges than it needs. But the mistake, in a very few instances, does not justify the impression that there is a general overlapping.

The third attitude of President Pritchett is that "a Christian organization may take the position that all colleges and universities, being influenced by agents in the training of men, are also agencies for moral and religious influence, and therefore the Church will seek by friendly cooperation, by sympathetic fellowship, by all the means of Christian activity, to make itself a religious influence in all institutions of the higher learning without assuming their control or support."

A very important condition is touched in this position. Never are all the students of a church in its own institutions. The better it covers the field of general classical training, which is its specific problem, the less can it meet the demands of fullest scientific and technical training. Consequently many of every church will be studying beyond the direct influence of its own teachers. Now to meet this emergency it seems expedient to undertake what some churches have begun; namely, to organize their own students in every general institution. At the head of such organization there ought to be placed men of the highest type, who are in deepest sympathy with college and university ideals, and who present to the young men the truths of religion as best fitted for their stage of development. But this work can only be done best when connected with the centers of certain denominational colleges, which ought to prepare the men for such labor and stimulate to its continuance. While, therefore, a real duty is put before all churches in the last position indicated by President Pritchett, yet the efficiency of this duty will depend upon such denominational leaders as the denominational college alone can develop.

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VI

THE EDUCATIONAL SIGNIFICANCE OF MINOT'S THEORY OF AGE AND GROWTH

Too little attention is given by educators to biological writings other than those purporting to have direct educational significance. True, the recapitulation theory is discust in all possible connections and certain of the more obvious facts of embryology are made use of, but, for the most part, newer discoveries and theories receive little attention. Probably very few undergraduate students of educational problems are aware that the biological world feels little interest in the recapitulation theory and does not take it seriously. Any one who reads the recent book of Professor Thomas H. Montgomery [1] of the University of Pennsylvania can get this modern viewpoint of many biologists on this much overworked theory.

The views on the growth of the child which are put forth by Professor Charles Sedgwick Minot of Harvard Medical School seem to be of great importance to the educator. Yet it is doubtful if the book [2] has had any particular sale among the very people who would find it most applicable to their own work. Because it runs counter to many prevailing views and to certain firmly fixt opinions of teachers it may not receive the support from students of education which it receives from biologists.

"A study of cytomorphosis," the alternative title of Dr. Minot's book, may well frighten any but the trained biologist, but this is a case where the "bark is worse than the bite." Indeed, the book is so fascinating from start to finish that one can hardly believe himself reading a scientific treatise by one of the most distinguished of American men of science. The

[1] *Analysis of racial descent in animals.*

[2] *The problems of age, growth, and death.*

thesis presented and defended is that old age is a natural condition, not a pathologic one, and that it is the natural result of changes in the body cells of the individual. The well-known facts of the shrinkage in size of cell nuclei with the oncoming of age are made much of and, indeed, a discussion of the relative size of nucleus and cytoplasmic mass in the cells of the body is presented as part of nearly every chapter. "Cytomorphosis," the form of cells, must be understood if we are to know the laws which govern age, growth, and death. Increase in the amount of cytoplasm in cells loads them with an inert material rendering cells and organs less and less active as the process goes on and as age advances.

Dr. Minot calls attention to the fact that the period of greatest activity, of growth, of development, is during infancy. Old age creeps upon the individual even from the time of birth—or before; constantly lessening power of growth tells the story of Time's influence. Decline in power is most rapid in the early years; it is less during what we call the "prime of life," and least of all in the time which we are accustomed to think of as the senescent period.

Many of the facts presented are old and well-known. Others are the records of experiments carried on by Dr. Minot himself and now put into published form for the first time. The percentage growths of animals by days, weeks, and months are given, graphic representations by means of curves being effectively used. It is shown by what leaps and bounds the young animal gains in weight. In the case of the human species a table from Mühlmann calculated upon observations by Bouchard shows the percentage increments by months as follows:

Age in months	Weight in grams	Monthly percentage increment
0	3,250	
1	4,000	23.0
2	4,700	17.5
3	5,350	14.0
4	5,950	11.0
5	6,500	9.2
6	7,000	7.7

Age in months	Weight in grams	Monthly percentage increment
7	7,450	6.4
8	7,850	5.3
9	8,200	4.4
10	8,500	3.6
11	8,750	3.0
12	9,000	2.8

In like manner it is shown that in the yearly growth of boys [8] there is a gain of 209 per cent. during the first year, of 29 per cent. during the second, and 20 per cent. during the third. Omitting intermediate years, in which there are slight fluctuations, it is found that during the tenth year the gain is 11 per cent., and for the twentieth year 2.3 per cent. At the age of twenty-three no growth occurs and the increment is 0 per cent.

The explanation of decrease in growth power is found by Dr. Minot in the relative increase in cytoplasm of the body cells. In the young embryo all cells have large nuclei and comparatively small cell bodies, and all cells appear much alike. With differentiation of cells and a growth of the cytoplasm, but not of the nucleus, the cells lose their youthful character and approach the condition recognized in adult life and in old age. It is the large nuclei of the infant and child with which are correlated the growth ability, wonderful muscular activity, and rapid mental development so prominent in the earliest years of life. Altho the adult may have greater mental power because of his wider experience, yet in the ability to do new things the infant greatly excels. A steady decline in mental vigor continues thru childhood, youth, maturity, and age.

Is any one of us capable of beginning at the moment we wake to carry on a new line of thought, a new series of studies, and to keep it up full swing, with unabated pace all day long till we drop asleep? Every baby does that every day.

When we turn to the child who goes to school, behold how much that child has lost! It has difficulties with learning the alphabet. It struggles

[8] Figures of Professor H. H. Donaldson of the Wistar Institute of Anatomy.

slowly through the Latin grammar, painfully with the subject of geometry, and the older it gets the more difficult becomes the achievement of its study.—*Problems of age, growth, and death,* page 243.

Dr. Minot does not attempt to draw a moral to adorn his tale. He refers, merely incidentally, to the desirability of students entering college early and getting into the professions as soon as possible. The experienced teacher will, however, see a perfectly definite application which can be made of the facts and theories which Dr. Minot presents. If it is difficult to learn things in late life, it is surely important to begin early with the various kinds of knowledge. To the present writer no more striking argument of the value of kindergarten, nature study, and manual training has been brought forth. The ordinary school curriculum of the first four grades is such that the child is introduced to the subjects of language, mathematics, and history, while a little later comes geography, but manual dexterity is not cultivated and the great world of science is a *terra incognita.* When we think that the amazing progress of the world during the past two hundred years has been largely in the sciences and their application to everyday life, can we afford to put off until high-school age the study which should make our children excel in these lines?

It is a commonplace of physiology that hand training is really mental training, that the pianist, for example, is one whose cerebellum has been educated. Certainly this particular kind of mental training can be best started with children. No more striking picture has been given of the loss of power to acquire manual dexterity than that of Dr. Minot (pages 243-244):

When golf first came in it was considered an excellent game for the middle-aged; and you have all watched the middle-aged man play. . . . Day after day, the man of forty, fifty, or even older, would go to the golf field hoping each time to acquire a sure stroke, but never really acquiring it. The young men learned better but the good golf players are those who begin as children, twelve and fourteen years of age, and in a few months become as expert and sure as their fathers wisht to become but could not. In bicycling it was the same. Eight lessons was considered the number necessary to teach the intelligent adult to ride a wheel; three for a child of eight; an indefinite number of lessons, ending in failure, for a person of seventy.

The more one considers the foregoing statements the more certain does he become that they speak truths of vital significance to the educational world. If regular school work is to be made most effective it must begin early and must introduce the pupil to as many lines of study as possible. Particularly in the early years must the danger of a one-sided education be avoided. It is then that new ideas are introduced with which the child builds the mental furniture of later life. The present writer would certainly not suggest a cramming process by which Paul Dombeys should be made, but he would submit it as essential that in the early grades there be an attempt to enlarge the world of the child, not to cramp it—to offer at least a glimpse of the things which will be met in everyday life in the years to come.

It is a serious question how to offer those things which the child can best learn in the age period from five to ten. We can not overlook the dangers to eyesight from the reading and writing of modern school life, nor the dangers to general health from confinement in ill-ventilated rooms. But these difficulties can be overcome. Much of manual training can be accomplished out of doors without close use of the eyes. Hours spent in nature study in the meadows or groves, or excursions with the teacher to factories, stores, and mills have an educational value for the very young that is not measured by whole days of book work. To relieve danger of eye strain in the schoolroom large charts may be employed in place of some of the books, and copying from the blackboard may be reduced to a minimum.

For children of the well-to-do nothing is likely to be gained by entering school at the age of six or seven, except in small families where the companionship of other children in school is greatly needed. Wealthy parents can provide their children at home with enough that is new. Most useful will be travel, with summers spent in the country and, if possible, private tutors to give a small amount of formal instruction. Better still would be some study under the direction of the father or mother.

But if formal instruction is omitted from the years when

most children are beginning their school work it will not do to postpone it too long. The ability of the child to acquire regular habits of study must be kept in mind. No desultory pursuit of even the most useful subjects will suffice to give that accuracy of perception and clearness of statement which are fostered by thoro work in some line, as mathematics. It is the business of the educational expert to study fully and sympathetically this subject. There can be no doubt of the great ability in childhood to learn new things. This ability must not be wasted. Those in charge of education should aim to make the most of it.

The idea of the quickness of the child in learning is, of course, not new, but the statement of the case as a part of a report on physiological experiments of growth for many different kinds of animals is highly important. Dr. Minot catalogs mental activity along with physical growth, and he has undoubtedly placed it where it belongs. The rate of bodily growth is highest in infancy, decreasing rapidly at first —more slowly in later life. Nuclei of the body cells are at first large in proportion to the amount of cytoplasm; their relative bulk decreases quickly in the first years, less quickly in after years. But there is no return to the original condition. Bodily activity and mental activity as well, being related to the size of nuclei, show a like decline.

This view of the progress of senescence is most thought-compelling. It is seen that truly "there is no time like the present." At the earliest possible moment consonant with health the child should begin his education, and this should be of such a nature as continually to open up new lines of thought and action. Just when formal schooling should begin is a matter for further study by physiologist and psychologist, but that education in some form should commence very early there seems no doubt.

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VII

THE CALL TO CITIZENSHIP [1]

Fourteen years ago this Association met for the first time in the city of Denver. It was then my privilege to address the members of the Association as their president, and I chose as my subject a question which was then, and perhaps is still, perplexing the minds of thoughtful teachers everywhere—What knowledge is of most worth? In answer to that far-reaching query I attempted to point out where, in my judgment, standards were to be found with which to make sure test of the relative worth of the knowledges which compete for the attention and the patronage of intelligent men.

Tonight, at the kindly instance of the distinguished gentleman who occupies the chair, I am again permitted to address this great Association, as broad in its sympathies as in its scope, assembled once more in the city of Denver. In the interval much has happened. Many familiar faces have dropt from our ranks, and their spirits have past over to the shores of the undiscovered country. Education has everywhere advanced with giant strides. Schools of every kind have multiplied and important new educational agencies have come into existence. The College Entrance Examination Board and the Carnegie Foundation for the Advancement of Teaching have demonstrated their capacity and effectiveness as standardizing agencies for institutions of secondary and higher education. Vext problems of the program of studies have advanced toward solution. Some dogmas eagerly taught fourteen years ago have lost their power, and new centers of educational interest have been developed. Our nation as a whole has past thru important and quite unexpected developments. Economic distress and economic prosperity have trod upon each other's

[1] An address delivered before the National Education Association at Denver, Colo., July 6, 1909.

heels with startling suddenness. A new political generation has come upon the scene, and it finds itself confronted by new and unfamiliar problems. Strong, virile personalities have contended together in the political arena for public favor and support, while the whole world has lookt on. The war with Spain, which fourteen years ago was unthought of, has past into history, and as its result, peoples and lands at once distant and dependent, have been brought under American rule. The phenomenal growth of industry, transportation, and commerce has put a new face upon many old questions, and has proposed some new ones as well. For these reasons alone, without pausing to add others which at once suggest themselves, the burden of responsibility resting upon American citizenship is today greater than it has been at any earlier time.

Several imposing political antinomies confront us. The natural desire to develop foreign commerce, and to enrich our people thereby, finds itself face to face with the determined purpose to throw the protecting arm of government about domestic industry. The definite wish to attract to our shores the ambitious and the worthy from all the world is held in check by the stubborn weight of the race problem, the roots of which are deep down in the nature of man. The purpose to keep open to every individual all possible avenues of usefulness and all possible opportunities for lawful acquisition, is opposed by the determination not to permit the development under law of great organizations, powerful enough to bend the law to their own purpose and to control the state itself. If fourteen years ago it was natural to discuss the principles which determine educational values, tonight it is equally natural to discuss the principles which underlie and control good citizenship.

The American citizen at the beginning of the twentieth century has something more to do than to face, and if possible to solve, these contemporary problems, complicated and difficult as they are. He has also, and first of all, to preserve and protect those underlying principles of civil and political liberty which were established by the fathers, and which have been handed down to him as the basis on which the whole fabric

of this Republic rests. To fail to solve the problems of today would certainly damage, and perhaps destroy, the fundamental principles of Anglo-Saxon institutions. On the other hand, to solve those problems in ways that antagonize and contradict the great insights of the past two thousand years, which insights have crystallized into forms of liberty and modes of government as familiar and as necessary as the air we breathe, would be not to solve them at all, but only to postpone and to complicate their possible solution.

It is plain, then, that the educational instrumentalities of the country, schools, colleges, and universities alike, have before them here a task which takes precedence of all questions of school organization and management, of programs of study and curriculum, of teachers' salaries and tenure of office, of general *versus* vocational training, of secondary and ancillary questions of every sort—the task, namely, of preparing intelligent American citizens to take up each his own share of the nation's responsibilities.

The unrest which is abroad in the world, and which is found alike in Europe and in America, in the unchanging East as well as in the restless and rapidly-moving West, is in no small part due to the lack of understanding of what is going on in the world and what has gone on hitherto. What one does not understand, first perplexes, then annoys, and finally antagonizes him. It is not true, as some hold, that the world's unrest is traceable in last analysis to physical hunger. Probably there never were so few hungry men as there are today. Civilization may have its faults, but lack of ability to uplift the masses of the population and to offer them opportunity is not one of them. The world has been for more than a hundred years under the spell of abstract principles, admirable in themselves, and yet the world in large measure lacks the ability or the capacity so to organize itself and its business that those principles shall find just and equable expression. Everywhere old beliefs, old traditions, and old customs are giving way before the corroding tooth of time, and as the time-honored creeds, political, social, and religious, lose their hold, others equally controlling and imperative do not come forward to take their place. Immense

masses of men are left, therefore, with almost boundless opportunities for good or evil, but without guiding principles with which to work. This leads to intellectual, political, and moral restlessness.

There are many who feel that the rising generation of Americans is growing up without any proper knowledge of the fundamental principles of American institutions and American government. Because of this lack of knowledge, well-meaning men lend ear quite too readily to demagogs who propose to them all sorts of schemes without any relation, save one of antagonism, to established political principles. From listening to demagogs, it is but a short and easy step to a state of mind in which envy, greed, and hate are elevated to the lofty place which should be occupied by respect and confidence, as well as by political insight, political knowledge, and political experience. The Americans of an earlier day got their training in the fundamental principles of citizenship from the stern facts which faced them. This was the school in which the nation's fathers were educated. During the early part of the nineteenth century the task of nation-building went on apace, and the discussion of fundamental principles was always to the fore in the Congress as well as before the people. Then came the great clash of arms in civil war, and principles were yet turned to for guidance and direction. Men sought even to stay and to turn back the tide of battle with the force of logic.

Today, however, one hears much less of these fundamental principles. There are those among us, some of them in places of responsibility and great influence, who call them outworn, antiquated, obstacles to popular government, and who would substitute the passing desire of today for the carefully wrought design of all time. Men now talk with straight faces of substituting rude and primitive justice for the orderly procedure of law, apparently with no recognition of the fact that this substitution means to plunge man and his highest interests back into barbarism, and to reestablish the time when might made right. The courts are attacked as usurpers of an authority which the people themselves have given them for the

people's own protection. The carefully built guards which have been put about individual rights and liberties are denounced as fortresses of privilege by those who seek privileges for themselves at the expense of the rights of others.

There are only two really deep-seated and influential enemies of human happiness and human order, ignorance and selfishness. These do pretty much all the damage that is done in the world, and they are the always present obstacles to improving the condition of mankind. It is the province of intellectual education to address itself to the first of these, and it is the task of moral education to deal with the other. If men's eyes could only be really opened to an understanding of how the civilization of the world has been won; if they could be brought to see the significance of each step, taken however long ago, on the upward path of man's development; if they could recognize that the perplexities of today are due chiefly, if not entirely, to lack of adjustment between the ruling principles which are at work in human life and the circumstances of the moment, and not to the imperfection or unwisdom of those principles, they would be able to pass juster and wiser judgments upon the questions submitted for arbitrament to them as citizens. If men could only be led to appreciate the distinction between selfishness and selfhood; to see the richness and fulness of nature which come from service; and to realize that the highest expression and the greatest conquest which a human personality can attain is thru finding its ideals and its satisfactions in promoting the happiness and the interests of its kind, the task of government would be easy indeed.

In all parts of the world there are those who feel this so strongly that, in order to gain what seems to them to be a desirable end for the whole body politic, they would strike at the roots of human individuality and deprive it of the favoring soil in which alone it can grow. If they were to succeed in this endeavor, they would not mend matters at all. On the contrary, they would make them worse. It is not less individuality that we need, but fewer self-centered individuals. It is not less private property that we need, but private property

more widely distributed and fewer men who treat their hoards as misers rather than as trustees. Human individuality and personality will blossom anew and more richly if planted in the garden of service.

If one, seeking to know the story of civilization, casts his eye back over the pages of recorded history, he will find that the record of progress can be written in a single sentence. It is the development of liberty under law. Liberty and law are the two words upon whose true and faithful exposition all training for citizenship must rest. He who truly understands the meaning of liberty and the meaning of law, and the relation of one to the other, is ready to face his full duty as an American citizen.

It is a sorry travesty upon the serious business of training for citizenship, that it should be thought that we can make citizens by teaching the external facts relating to the machinery of government alone. A knowledge of how government works in this and other lands is highly important and of course helpful. But this knowledge may be minute and complete and yet be unaccompanied with any real grip on the principles that vitalize free government everywhere.

An admirable book for training in the fundamentals of citizenship could be written in three parts: the first to deal with, to describe, and to illustrate the conception of Liberty; the second, to deal with, to describe, and to illustrate the conception of Law; and the third, to outline in simple fashion the agencies which the American people have created in order that Liberty and Law may strengthen each other.

Liberty is the freedom from all restraints but those which the lawful rights of others impose. Liberty, therefore, attaches to man as a social and political animal. It relates to his conduct and opportunities as a member of a body politic. Liberty contradicts and denies license just as completely as it contradicts and denies tyranny. To escape from restraints other than those imposed by the lawful rights of others, men have made every conceivable sacrifice. To be permitted to hold opinions of one's own choosing, to pursue the calling of one's own preference, to move about as inclination and oppor-

tunity may lead, to retain as one's own possession the rewards of one's labor and skill, are inseparable from liberty. The free man, therefore, lives surrounded by both opportunities and limitations. The opportunities are an invitation to the exercise of his own capacities; the limitations are the just opportunities and privileges of others. It is one of the paradoxes and marvels of human nature that man grows in power and in grace as he lives and works with others who have the same privileges and opportunities as himself. As he rises superior to these limitations and thru sacrifice overcomes them and turns them into elements of strength and power for himself, he grows in individuality and in usefulness as a citizen.

It is law which imposes the limitations that are characteristic of liberty. Law is nothing more nor less than the system or collection of principles and rules of human government in their application to property and conduct, which are enforced by a sovereign political authority. Laws themselves change but the principles underlying the existence of law do not, and can not, change unless society and civilization are to be destroyed. They are the long and painful product of evolution operating in the field of human conduct and human affairs. The really intelligent man regards the tried and tested products of time with high respect; the anarchist would destroy them at one blow for the pleasure of returning to chaos. It is of high importance to teach that law is not caprice, that it is not tyranny, that it is not limited in its application. It is the sovereign people themselves who speak by the mouthpiece of the law, and the institutions and agencies which have been created for the exposition and enforcement of law are the people's own institutions and agencies. It is a noteworthy and singular characteristic of our American government that the Constitution provides a means for protecting individual liberty from invasion by the powers of government itself, as well as from invasion by others more powerful and less scrupulous than ourselves. The principles underlying our civil and political liberty are indelibly written into the Constitution of the United States, and the nation's courts are instituted for their protection. We Americans are thus in possession of an appa-

ratus unlike anything which exists elsewhere in the world to protect the principles of liberty, and it is to this more than to any other single cause that we owe the stupendous strides of the past one hundred and twenty-five years.

An intelligent citizenship, which is also good citizenship, implies, however, much more than a knowledge of fundamental principles, indispensable as that knowledge is. Good citizenship implies a habit of will by which the individual instinctively conforms his action in concrete cases to the abstract principles in which he professes belief. It is curious how many men feel that the rule of sound principle is excellent for the conduct of others, but that it should be suspended or at least relaxed in their own case when some material advantage is to be had. It is a long time since clever men first began to devise ways and means of making the worse appear the better reason, and human ingenuity has not yet exhausted itself by any means. Madame Roland's heart-breaking cry from the scaffold "O! Liberty, how many crimes are committed in thy name," is still ringing in the world's ears. We must be careful, then, not to confuse the names Liberty and Law with the facts. We must not permit ourselves to be misled by appearances, but rather insist upon digging down to the bed-rock of underlying principle in order to determine our attitude toward a specific political or social problem.

It is curious, too, how ready men are to condemn in their contemporaries the qualities which they profess most to admire in their ancestors. What was the determined purpose of long ago becomes narrow-mindedness and stubbornness when exhibited today. The lofty idealism of some great prophet of the race which has been celebrated in song and story for centuries, passes into the vagaries of a dreamer and the outgivings of an unpractical mind, when we find it looking us in the face. This power of self-deception keeps many of the worst citizens from realizing that they fall short of perfection in any degree. They go thru all the forms and recite all the formulas of the creed of respectability and of duty. They dole out a little something to charity now and then, with quite the air of a martyr going to the stake for his beliefs. What more can be

asked of them? The answer is instant and imperative: Make some show of genuine human feeling. Give some expression of honest human sympathy. Offer some real sacrifice for the common interest and the common good. Dwell upon something other than one's own physical comfort and material welfare, and lend a hearty hand to the huge task of making more human beings intelligent, property-holding, and free from the harassing and in large part unnecessary cares which now torment them. If the decent men and women of America would begin tomorrow to do the things which their private beliefs and their public professions require, the sum-total of the world's comfort and happiness would be marvelously increased before sunset. It can not too often be repeated that the problem of human betterment is not a problem of revolution. It is not a problem whose solution involves cutting loose from all that has gone before, or one which compels radical readjustment of accustomed legislation. It is simply and solely a matter of individual self-betterment. Individual men and women are not going to be made over by the spread of some philosophy as to how under other auspices or in other worlds than ours the race might have been happier and more comfortable. Society as a whole is nothing more nor less than the sum-total of the individuals who compose it. It has no separate metaphysical entity, nor is it some strange and alien thing of which individual citizens know nothing and form no part. Individual men and women are society. They are the state. To it their highest allegiance is due. No church, no party, no union, no lodge, may interpose its interest or its ties between the state and the highest duty of the citizen with impunity, or without tending to overthrow the social order and to substitute the hatefulness of class feeling for the glory of patriotism. If men's standards of action be raised, if their citizenship be real, sincere, and vital, then society is already reformed. Nothing else remains to be done.

In one of his well-known essays, Macaulay makes the statement that no compositions have ever been produced in the world that are equally perfect in their kind with the great Athenian orations. He adds the striking suggestion that

genius is subject to the same laws which regulate the production of cotton and molasses. The supply adjusts itself to the demand. The quantity may be diminished by restrictions and multiplied by bounties. To the influence which oratory exerted at Athens, Macaulay attributes the singular excellence to which eloquence attained there. Why should not good citizenship rise to heights here in America equal to those which oratory and eloquence occupied at Athens? Macaulay may be right. Let us put a bounty on good citizenship by giving to it great influence; by rendering it high honor; and by holding it in incomparable esteem. Let these standards be set early in the home and in the school. Teach young children who the real heroes of our Republic are. Show them with clear illumination the underlying principles on which the nation is built, and tell the story of how mankind discovered those principles and wrought them into political institutions. Do not permit the problems of today to become separated from the problems and principles of yesterday. Make it plain that the story of our political evolution is continuous and that what exists and perplexes now is the natural and necessary product of all that has gone before, and will, in turn, condition and determine what is to follow after. Before all else, keep the inspiring maxim, Liberty under law, before every American child, and as he grows in power of appreciation see that he understands what it means and involves.

The *Institutes* of Justinian, which have shaped the law of Europe for nearly fifteen hundred years, open in sonorous Latin with the sentence which rendered into our tongue reads, "Justice is the constant and perpetual wish to render every one his due." Justice, then, is a habit of will; a habit of will not on the part of an individual sovereign, or of a high officer sitting in state, but a habit of will on the part of every individual who claims and receives the rights and privileges of a citizen. The will to render every one his due means that the rich, the powerful, and the successful are to have their due accorded to them without grudging and without envy, just as the poor, the unimportant, and the struggling are to have their due in fullest measure without oppression or exploitation. It is easy to be

just when it costs nothing. The test of one's essential justice of mind and will comes when personal interest, personal prejudice, or personal passion stands in the way of its exercise. The perpetuation of democracy depends upon the existence in the people of that habit of will which is justice. Liberty under law is the process for attaining justice which has thus far been most successful among civilized men. The call to citizenship is a call to the exercise of liberty under law; a call to the limitation of liberty by law; and a call to the pursuit of justice, not only for one's self, but for others.

For inspiration to an understanding of American citizenship let teacher and student alike turn to the great oration of Daniel Webster delivered at Plymouth, Massachusetts, on December 22, 1820, to commemorate the first settlement of New England. The reader who follows this remarkable exposition of the meaning of republican institutions as Americans had framed them, will understand the feeling of John Adams when he wrote: "This oration will be read five hundred years hence with as much rapture as it was heard. It ought to be read at the end of every century, and indeed at the end of every year, for ever and ever."

Those glowing words are the judgment of one of the nation's fathers upon the meaning of the call to American citizenship. What is to be the judgment of those who are now the nation's children?

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VIII

CURRENT EDUCATIONAL PUBLICATIONS[1]

Aguayo, Alfredo M. La pedagogia en las universidades. Habana, Imprenta Avisador Comercial, 1909. 18p. 8°.

Allen, J. W. The place of history in education. Edinburgh and London, W. Blackwood and Sons, 1909. 258p. 12°.

Assuming that a system of education can be based only on agreement as to values, the author, who is Hulsean professor of modern history at Bedford college, University of London, discusses the place of history in a hypothetical system founded on a basis of agreement below all controversies. The book is readable and suggestive.

Betts, George H. The distribution and functions of mental imagery. New York, Teachers College, Columbia university, 1909. 99p. 8°. (Teachers college, Columbia university, Contributions to education, no. 26)

Cole, Percival R. Later Roman education in Ausonius, Capella and the Theodosian code; with translations and commentary. New York, Teachers college, Columbia university, 1909. 39p. 8°. (Teachers college, Columbia university, Contributions to education, no. 27)

Congrès international d'enseignement ménager. Fribourg, les 29 et 30 Septembre 1908. Second volume. Compte rendu des séances. Fribourg, Suisse [Office international de l'enseignement ménager] 1909. 320p. 8°.

Congresso nazionale dei capi d'istituto. 2d, Rome, 1908. Atti. La riforma della scuola media. Roma, Amministrazione della Rivista pedagogica, 1909. 186p. 8°. (Supplemento della Rivista pedagogica, anno ii, fasc. v)

Dewey, Henry B., *ed.* History of education in Washington. Preliminary edition issued for distribution at the A.-Y.-P. exposition. Olympia, Wash., E. L. Boardman, public printer, 1909. 83p. 8°.

Dudley, Gertrude *and* **Kellor, Frances A.** Athletic games in the education of women. New York, H. Holt and company, 1909. 268p. 12°.

Dugas, L. Le problème de l'éducation; essai de solution par la critique des doctrines pédagogiques. Paris, F. Alcan, 1909. 344p. 8°.

[1] Compiled by John D. Wolcott, Acting Librarian of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

Eaton, Ethel Mason. Kindergartens in the public schools. New York city, The Public education association [1909] 24p. 24°.

Elson, William H., *Superintendent of schools.* Preliminary report on simplified course of study, Cleveland public schools. Cleveland, Board of education, 1909. 40p. 8°.

Contains development of course of study since 1836, status of present course as compared with earlier conditions and other cities, opinions of representative citizens and elementary school principals; simplification by elimination of studies, by selection of topics, by revaluation, and by correlation; conclusions and recommendations.

Formiggini-Santamaria, E. L'istruzione popolare nello stato pontificio (1824-1870). Bologna, Modena, A. F. Formiggini, 1909. 288p. 8°.

Frere, Margaret. Children's care committees; how to work them in public elementary schools. London, P. S. King and son, 1909. 86p. 12°.

"The purpose of this handbook is to help local managers, and more particularly women managers, of elementary schools in carrying out the social and charitable, as distinct from the official work, which awaits them in these schools."

Gaudig, Hugo. Didaktische präludien. Leipzig und Berlin, B. G. Teubner, 1909. 272p. 8°.

International congress for the development of drawing and art teaching. 3d, London, 1908. The transactions of the Congress; ed. by C. Myles Mathews. [London] Offices of the Congress [1909] 593p. 8°.

Kikuchi, Dairoku, *Baron.* Japanese education. Lectures delivered in the University of London. London, J. Murray, 1909. 397p. 8°.

Embodies the substance of two courses given in 1907, one on Japanese educational administration and one on Japanese education, especially elementary and secondary from the pedagogic point of view. The entire material has been recast and merged, and some important recent changes in elementary and normal education noted.

Kirkpatrick, Edwin A., *ed.* Studies in development and learning; contributions from the department of psychology and child study in the Fitchburg normal school, made by the advanced class of 1907. New York, The Science press, 1909. 101p. 8°.

Laurie, Simon S. Institutes of education; comprising an introduction to rational psychology. 3d ed. New York, The Macmillan company, 1909. 391p. 8°.

"This volume contains my class lectures after frequent revision and condensations. It is the third edition, but the changes on the second edition are merely verbal."—Pref. note.

Mackenzie, John Stuart *and* **Mackenzie, Millicent.** Moral education: the task of the teacher; the training of the teacher. [London, Moral education league, 1909] 30p. 8°.

Reprinted from the International journal of ethics, July 1909.

The secretary of the Moral education league, Mr. Harrold Johnson, knows of no more adequate statement of its position than that contained in this paper of its president, Prof. J. S. Mackenzie.

National congress of mothers. How to organize parents' associations or mothers' circles in public schools, with suggestions for programs. [n. p.] National congress of mothers, 1909. 40p. 24°.

National education association. Proceedings of the Department of superintendence at the annual meeting held at Chicago, Ill., February 23, 24, 25, 1909. [Chicago] Pub. by the Association, 1909. 187p. 8°.

Newman, Carrie S. The kindergarten in the home; a book for parents and for all interested in child-training. Boston, L. C. Page & company, 1909. 259p. 12°.

Pritchett, Henry S. The twentieth century type of education. Hampton, Va., The Institute press, 1909. 8p. 8°.

A commencement address at Hampton institute, delivered May 23, 1909. Reprinted from the Southern workman. Gives as the motto of the eighteenth century school and university "I believe;" of the nineteenth century school and university, "I believe, but I think;" of the twentieth century school, "I believe and I think, in order that I may work."

Sandison, Howard. The problem of method. Terre Haute, The Moore-Langen printing company, 1909. 442p. 8°.

"In this volume it is the intention to consider method as essentially the psychological process of the pupil in obtaining possession of the subject-matter."—Pref. to first ed.

Upham, Alfred H. Old Miami, the Yale of the early West. Hamilton, O., The Republican publishing co., 1909. 274p. 8°.

Virginia. University. Rural life conference. Addresses delivered at the University of Virginia summer school in connection with the Conference for the study of the problems of rural life, July 13 to 16, 1909. [Charlottesville, Va., The Michie company, printers, 1909] 98p. 8°.

Willmann, Otto. Aristoteles als pädagog und didaktiker. Berlin, Reuther & Reichard, 1909. 216p. 8°. (Die grossen erzieher; ihre persönlichkeit und ihre systeme, hrsg. von R. Lehmann, 2. bd.)

IX

DISCUSSION

THE INEFFICIENCY OF MODERN SCHOOLS

A REPLY

In the March number of the *North American review* a call was sounded by Harold E. Gorst, urging an educational reform; a plea was made for specialization instead of general education; it was urged that since the welfare of a nation depends upon the education of its youth, the children should have the best education attainable, and that that education should be along those particular lines which interest the children most. Mr. Gorst's article gives the impression that to specialize from the very beginning of a child's education is the ideal way to do; we are to believe that the educational system should be so changed that there should be great bureaus established at which the little tots should be subjected to examination to find out what the bents of their minds are, and whether their inclinations would lead them to be mechanics, authors, farmers, civil engineers. After the officials in charge had past upon each case, the children should be sent to various schools—or, rather, "workshops"—where, from the very beginning, they might have such training as would fit them for their life work.

We grant that there is something the matter with the modern school, but is the theory advanced by Mr. Gorst the solution of the difficulty? If children should start their education in such preliminary technical schools, and if they should specialize from their youth up, how broad-minded would they be when they had completed their education? They might all be master bricklayers, or master lawyers, they might be experts in their own professions and trades, but they would have nothing in common with the rest of mankind and would, of necessity, be but fine machines capable of doing efficient work

and nothing more; the members of the different trades would be compelled to associate only with members of their own guilds, and that would be ruinous to society. It is hard to say in what a state society would be if the preliminary technical school idea were carried out. The love in the home is one of the redeeming feelings in this weary old world, and the admiration or adoration of the children is one of the greatest and best of the home loves. If babies would begin to prepare for their life work there could be no childhood and, if there would be no childhood, there could not be the happy home life God intended for man. But it seems useless to discuss the scheme of specialization in the elementary schools, for even the theory seems impracticable. Experts would be required to pass upon the cases of the little children in order to decide in what field the labors of each one should be directed and expended. It can easily be seen that such a great number of experts as would be required could not be found. For instance, consider the country districts. The country children have as much right to advantages as city children have, yet it is a patent impossibility to provide the expert examiners to examine the children of every country district. Even if the offices in central positions were opened, the state of the finances of the common people would preclude the possibility of the children being taken there for examination. The common school system of today offers a common education to all the children. The system of specializing would affect only a favored few. But, even if the great examining offices could be opened, the system would be impracticable since, in the country districts, special department schools would be an absolute impossibility. Even tho the children might be able to go for examination to nearby cities, they could not go regularly to school there. They could not travel back and forth, and they could not board in town. Only city children, and, of those, only ones of means, could go to the schools. For America, then, at least that system is impracticable since the Americans stand for an equal chance for every one.

But, altho the system suggested seems useless, we must offer a better substitute for it, since we, too, have lamented the fact

that the schools of today are not what they ought to be. We contend that the system now in practise is admirable, but that the instruments by which it is operated are not of the best. By the present system all children are offered—yes, are compelled to accept—a free education, and in the unfolding time of their natures their minds develop with their bodies. In order that the minds of children develop naturally, they should be developed broadly at first, instead of starting in at the beginning to specialize. Nature is, after all, pretty wise, and we might well pattern after her when we seek means for developing the mind. In the beginning of the development of the body of a child, one part does not grow to perfection alone, but all organs and members develop gradually together. A child who is destined to become a great optician or astronomer does not develop from the beginning a strong, piercing eye; a youth who will one day become a successful farmer is not in youth a paragon of brawn. Nature develops the different parts of a child's body simultaneously, gives him sturdy arms, clear eyes, a strong heart, good lungs, all at the same time. Should not the mind grow broad, study mathematics, languages, history, geography before it commences to specialize? Specialization may be all right in its place, but its place does not seem to be in the elementary schools.

On the other hand, the public school system seems an ideal theory. The main trouble with the educational system seems to be the low standard which it has for its instruments, that is, for its teachers. If the criterion for instructors were higher, naturally the instruction would be more worthy, the student would be better prepared, and there would be more who would be enough interested to complete their educations. Many teachers, even in the first-class high schools, seem to have lost sight of the fundamental reason for teaching. They seem to imagine that they are placed in the schools that they may find out how little or how much the pupils know. The question and answer method of conducting recitations is used nowadays, to determine a child's class standing in order that proper grades may be given. Grades are a good thing in so far as they show a student where his weak points are, or en-

courage him to continue if he already be doing good work. But the plan of grading is wrong in so far as it is the end for which student and teacher hold recitations. The real reason for having teachers in charge of schools is that they, by their greater knowledge, may guide the thought of the pupils along the proper channels, and shall supplement and impress upon the student the things they learn from their books. The proper function of the Socratic method of recitation is to enforce what is said in the texts, and to encourage originality and individual thought by drawing out the impressions and opinions of the pupils thru questions. The teacher should seek to develop mind instead of memory.

In order to accomplish the desired effect, the students, in the first place, must be interested in their studies. It is an obvious fact that when one is interested in a subject he can do more efficient work than he can when the particular branch of study is compulsory. A professor once said that the reason many people find the higher branches distasteful or even positively difficult is because the foundation work has not been well done. The fault lies at the door of both teacher and student, but the greater blame belongs to the teacher. Children enter school wide-eyed and expectant; the things told them are marvelous, and one new wonder after the other is unfolded before them; they are exultant when they are able to spell "cat" or "mat," and exuberant when they can figure out that $2+10=12$. In other words, the new learning is presented attractively. But, a little farther on, when the children enter the grammar grades, we hear them complain of hard lessons, which are so uninteresting. Going to the root of the matter, we find that the teachers assign the lessons as tasks, not as interesting research or investigation, which makes them naturally irksome. Too often the teacher is the taskmaster, instead of being the co-student with the pupil. It is no wonder that the school-teacher is looked upon as the cross and crabbed old maid, gaunt and thin, with stern spectacled eyes. It is no wonder that so many children hate school and drop out as soon as they have reached the age limit. It can bear repetition, then, that a higher standard for teachers to measure up to should be set up, and that all

teachers should be required to pass as rigid an examination in pedagogy as in mathematics, or any other study, and should be well able to present learning to the pupils in an interesting way.

One of the serious mistakes made by teachers is due to their faulty ideas of discipline. Some teachers make their pupils antagonistic to them, and thus ruin all chances of being useful to them. Discipline, engendered by respect for a teacher, spontaneous and involuntary, is essential; but tyranny too often replaces the bearing of a teacher which demands respect, and is rewarded by good discipline. Not only in the matter of keeping strict order are some teachers tyrants, but tyranny is often very noticeable in the matter of tests and examinations. Tests are excellent in many cases. It is the way in which they are announced and spoken of that raises the objection. A class is often told that an examination will count half of the term grade, and that a flunk will pull the grade down wofully. Such threats are behind cramming. No discussion need be given why cramming is injurious. The fact that cramming is useless and often positively detrimental, has often been proven. Is it then necessary to urge that examinations be given merely for the purpose of review, with nothing said about the grade? Is it necessary to emphasize the fact that the student and the teacher should be co-students together, and that school work should be so conducted that children find it a pleasure, not a task? If such progress were made there would be more people complete their educations, and instead of there being many pupils there would be an increased percentage of students among those who go to school.

The common fallacy in the present theory of education could not be rectified by schools for specialization, since from the social and the financial standpoints such schools would be impracticable and, in the light of common sense, we must deem them out of accord with Nature, the all-wise teacher. The fallacy is the teacher's conception of duty, and improvement is needed in the preparation, first, of the teachers themselves. They must recognize that their duty is to guide their pupils in their pursuit of knowledge, and that their questioning must be, not to ascertain the degree of knowledge to which their

pupils have attained, but to draw out the impressions already in the minds of the students, as well as to suggest new lines of thought for research and investigation. The school should be a place in which originality and individuality should be developed. The teacher should not adhere so closely to the text that the pupils have no liberty in giving vent to their own ideas upon the subjects discust. If a student figures a subject out for himself, he will know much more about it than he will if he merely learn it from a book. If opportunity be given for classroom discussion the student will learn self-appreciation and self-reliance. The good teacher dare not hold the students down too closely to the text or to rigid discipline; he must give freedom and make the work interesting; he must not be a taskmaster, but a student with the students, and all his methods must be conducive to interesting his pupils.

The keynote of successful education of the masses is, then, education of those who are to teach. The teacher's education must embrace the branches to be taught and, in particular, pedagogy and effective methods of presenting learning. Such a change in the educational system will be more beneficial than the substitution of special schools would be, and would make school life a pleasure for children, would increase the desire to give expression to personal thought and investigation, and would strengthen the personality and individuality of the students, giving them self-appreciation and self-reliance. Men are but thinking animals, and the sooner one learns to think originally, and be self-reliant in his thinking, the sooner he rises from the level of mere creatures and attains the place of Man. Surely, this evolution of men from creatures is the function of school, and, since it is so important, it makes good schools under good teachers imperative.

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X

REVIEWS

Principles of logic—By George Hayward Joyce. New York: Longmans, Green & Co., 1908. xx+429 p. 6s. 6d.

This book is another of the many excellent ones that have come from Stonyhurst, issued, it seems fair to presume, with the purpose both of supplying textbooks to those of the English tongue who hold to neo-scholasticism, and also of vindicating the point of view of this minority before the larger part of us who have opposing views. If any there be who do not admit this vindication as a fact accomplished, certainly none can deny the value of the series not only as affording an able and sympathetic introduction to scholasticism, but also as showing how scholasticism, in the form now frequently called neo-scholasticism, looks at present-day thought and method.

Perhaps none of the Stonyhurst books more thoroly answers to the purposes suggested than does the book of Professor Joyce's under review. As a textbook in logic for students in those schools which adhere to neo-scholasticism the book seems exceedingly well adapted. In fact, it were much to be wisht that those who seek their logical theory along other lines could have the advantages of such perfection of system and such clearness of representation as characterize this book. Whatever the opponents of scholasticism may urge against that system, it must be admitted that the successive efforts of so many able men working along so nearly the same line, have produced a system of thought wonderfully coherent in its parts and wonderfully clear in its statement.

If the reader will compare Professor Joyce's treatment of any of the traditional topics with that to be found in our "standard" treatises, he will, I think, readily admit the superiority of the former in the respects indicated. Contrast, for example, Joyce's treatment of definition with Mill's.

When Mill's two discussions (in widely separate parts of his book) are read for the first time, diffuseness, if not haziness, is likely enough the resulting impression. With Joyce, on the other hand, one feels delight in reading such crisp and clear-cut statements fitting in so inevitably with all that has preceded.

The list of topics in Professor Joyce's book is much the same as one finds in the customary book on inductive and deductive logic; Part I gives the traditional formal logic, while Part II treats of "applied logic, or the method of science." In Part I appears much the same method of treatment to be found in any book on formal logic, and yet there is a fundamental line of cleavage distinctly visible in many of the topics; for the author holds, consistently enough, that "it is impossible to deal with logical questions save in connection with definite metaphysical and epistemological principles."

Whether it is possible for neo-scholasticism to give adequate treatment to the "method of science" is an inquiry that belongs elsewhere; but this part of Professor Joyce's book seems to the reviewer the least satisfactory. The criticisms made above upon non-Catholic writers on logic as to their (alleged) comparative lack of coherency of system and precision in presentation apply with equal force, on the whole, to Professor Joyce's treatment of the more modern topics. And some unsympathetic readers will likely add the more serious criticism (if true), that there is in the discussion of these modern topics a (real or fancied) lack of spontaneity, at least; while some will doubtless conclude that modern scientific methods and results fit hardly into the scheme of neo-scholastic logic.

As a specimen of bookwriting and of bookmaking, this textbook deserves high praise; author and publisher alike are to be commended. The type and paper are excellent, and the proofreading has been done with unusual care. Appended to the book is a valuable collection of questions on logic taken from recent examinations. A good index completes the whole.

W. H. Kilpatrick

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Einleitung in die akademische Pädadogik—Von HANS SCHMIDKUNZ. Halle a|S.: Verlag der Buchhandlung des Waisenhauses, 1908. M3.

The title and contents of this volume remind us that in Germany as well as in America the question of systematic teaching in college and university arouses a deep interest. The necessity of teaching ability in the lower schools is everywhere recognized; and, in the elementary school system especially, it has achieved great results. For the secondary school its need is fully admitted; the supreme value of pedagogic training, when superimposed upon excellent attainment in subject-matter, has so firmly imprest Germany that it has developed a unique system of gymnasial seminaries in which small groups of candidates are initiated by expert teachers into the practise of their profession. We in America appreciate and admit the need, but have not yet developed the method for our secondary teachers.

Beyond, in the realm of college work, there has been no attempt to require standards of pedagogic ability, and yet it is conceded that because of the neglect or contempt of pedagogic precepts much of our college instruction lacks effectiveness. It is idle to raise an issue between capacity for creative work and capacity to impart successfully. They are not antagonistic to each other, but they are, of course, not necessarily coincident.

If it is the highest aim of the teacher at college or elsewhere "to transfer his intellectual attainments to others," then, whether he is teaching lads of fourteen or young men of twenty or twenty-two, he must give attention to the methods that make the transfer effective. There is a science of pedagogics that applies to academic work; it makes for clearness of presentation, for precise formulation of purpose, for the same essentials, in short, that are recognized in the earlier school stages.

We are all aware of the prejudice among college instructors against the pedagogy of the schools; they resent the possible confusion of their methods (?) with those of "the mechanicals," the schoolmasters, and yet the glory of academic pursuits will not be tarnished by a knowledge of teaching method, or teaching routine.

A very remarkable contribution to this important question is the above-mentioned book of Schmidkunz; it will grow into the profound appreciation of the serious reader; it can not be read hastily, for the style is by no means attractive, but it is animated by a tremendous earnestness, and its conclusions will eventually win, I believe, acceptance. The affiliations of Schmidkunz may serve to indicate "Wess Geistes Kind er sei"; he applies to the whole field of academic teaching the motto of his friend and master Ernst Bernheim in the latter's *Lehrbuch der historischen Methode,* "brilliancy without method is no less injurious to true science than method without brilliancy." But it would do scant justice to this splendid book to regard it simply as a guide to teaching efficiency in college and university; incidentally it is that in its many valuable suggestions, but it is above all an introduction into a new field of scientific research. Schmidkunz demonstrates beyond question that there is a science of academic pedagogy, and his primary interest centers in establishing its principles, the theory of a pedagogy of the sciences and arts.

To develop his arguments would transcend the limits of a review, but our present purpose is simply to indicate, even tho faintly, their range. "The sciences and arts can not be cultivated in their fullest sense unless they are handed down to new interpreters"; there is a tradition of scholarly advance binding the successive generations to each other (p. 37), and this tradition is not passive, "it contains within itself a tendency, a craving for greater perfection." Moreover, "the aim of academic pedagogy is not to train merely in scientific proficiency nor for a profession, but for a calling, a vocation" (*Beruf* being both broader and more ideal than *Fach*). The university professor hands down not the sum total of his science, but within a circumscribed sphere the sum total of its *methods,* and yet "the exclusive cultivation of method is impossible, for method must attach itself to some subject-matter in the science under consideration" (p. 87). Hence he calls for the exhaustive study of method in a typical *segment* of a given field of learning, after there has preceded

an encyclopedic summary of the whole field. And because the realms of knowledge are interrelated he demands such surveys of sciences, in the last instance an encyclopedic course of science as a whole, which for convenience's sake may be divided into one course "der Geisteswissenschaften," and another of the natural sciences.

We all appreciate the danger of superficial generalizations in such courses, but a teacher of truly philosophical mind and breadth of view could effectually counteract in such a course the narrowing tendencies of overspecialization. Is it not most desirable that our academic youths should occasionally look beyond the confines of their immediate Fach to its place in the larger cycle of human knowledge? May such an encyclopedic course not serve to correct at times a premature choice of a special field of investigation and lead to a spiritually more congenial line of inquiry? The consciousness of just such a need has found some expression in the recent series of non-technical lectures in Columbia University.

From the volume under consideration we may gather other valuable hints; Schmidkunz rejects the assumption prevalent in Germany that academic pedagogy offers only the two alternatives of the lecture course and the practise course (seminary or practicum) (p. 81). Notwithstanding the greater maturity of the student body the final success of all academic work hinges upon the reaction it calls forth in the student. The subject-matter imparted must 1. touch the student, and, 2. affect him spiritually. Evidently in Germany, as elsewhere, there is cause for the complaint; "much is taught, little is learned; incomplete grasp of subject-matter necessitates cram in place of genuine study" (p. 81). Hence he gives great prominence to the personal and conscientious *advice* of the teacher to the individual student; he develops four stages of the academic relations between the teacher and student; in the advisory stage the giver (the teacher) is most active, the recipient (the student), most passive; in the lecture scheme the former's personal activity diminishes as does the student's passivity; in the seminary and practicum the teacher diminishes still further his active participation in favor of the stu-

dent's steadily growing activity; the fourth stage, that of the student's private personal study, represents the goal of academic teaching, the adoption by the student of the scientific method toward which he has been led.

A word may be in place in regard to the advisory function on which Schmidkunz repeatedly dwells. In view of the aimlessness in the choice of lectures which operates against the success of many a student in Germany, as the free elective system is apt to do with us, he feels justified in attaching the greatest importance to this function of the academic teacher. Mere perfunctory advice is fraught with danger; every young man will benefit by the personal suggestion that the enlarged human experience and special scientific insight of the teacher can offer, but because of the weight that attaches to such advice it should be administered with extreme conscientiousness; a hasty or superficial suggestion may mar the successful advance of a youth; human sympathy becomes at least as potent a factor as scientific capacity in the wise exercise of this duty. "Advice that recognizes the freedom of the will is the highest form of correcting control" (p. 85), and again, "well-timed advice will not rob the student of independence, but lead up to it" (p. 125).

One is tempted to quote quite as liberally from the sections that discuss the method of the lecture and the conduct of seminary work. Schmidkunz believes in the lecture; he refutes the charge that it may easily be replaced by a good textbook. "The sound lecture course will always be in advance of the latest publication, it reflects the constantly creative interest of the lecturer; by its technique, by the occasional introduction of the question-and-answer method, by the stimulus to discussion that it may furnish, it enlists the intellectual cooperation of the student." To teach in place of results the growth of results (Schleiermacher's conception) is the special province of the university lecturer.

At the university, as in the secondary school, he attaches to repetition a value which is not always completely appreciated, not mere verbal repetition, but modified repetition from a new angle of vision; this it is that secures definiteness of insight;

the curve of forgetfulness, as we all know, is by no means limited to the lower schools.

To sum up, pedagogy is more than a skilful guidance of immature boys and girls. The college and university student is in the best sense still a παῖς, and the art of advancing him to the proper use of his powers is worthy of the thought of the most advanced master in his science.

JULIUS SACHS

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A much more than usually profound study of taxation is found in *The methods of taxation* by David MacGregor Means. The author's treatment of this vitally important subject is not only based upon a wide knowledge of economic processes and literature, but also an acquaintance with actual political conditions. The book demands and deserves serious study. (New York: Dodd, Mead & Co., 1909. 380 p. $2.50 net.)

The never old *Agricola* of Tacitus has been edited by Professor Duane R. Stuart of Princeton with a useful introduction and notes. It is a pity that on purely stylistic grounds the *Germania* and *Agricola* of Tacitus are not more read than is now the case. (New York: The Macmillan Co., 1909. 111 p. 40c.)

Professor Alden's *Introduction to poetry* is a careful and sound bit of literary exposition and criticism. It contains ample material for discussion in class or seminar, and is thoroly well arranged. (New York: Henry Holt & Co., 1909. 370 p. $1.25.)

An interesting contribution to American educational history is contained in Dr. Harlan Updegraff's *Origin of the moving school in Massachusetts.* The ground covered by Dr. Updegraff is very little known, and he sets out in attractive fashion the educational as well as the social and political aspects of his topic. (Teachers College, Columbia University, New York: 1908. 195 p. $1.00.)

Greek architecture by Professor Allan Marquand of Prince-

ton is at once a textbook and a book of reference. The illustrations are unusually good. (New York: The Macmillan Co., 1909. 424 p. $2.25.)

A useful book for supplementary reading on the part of students of American history is *Romance of American expansion* by H. Addington Bruce. (New York: Moffat, Yard & Co., 1909. 244 p. $1.75.)

President King of Oberlin College continues to contribute thoughtful and stimulating essays on subjects of high importance. We welcome his latest volume, entitled *The laws of friendship*. (New York: The Macmillan Co., 1909. 159 p. $1.25.)

Under the editorship of Professor Nielson of Harvard, there has been prepared a collection entitled *English and Scottish popular ballads*. The annotations are scholarly and most helpful. (Boston: Houghton Mifflin Co., 1909. 187 p. 40c.)

An indication of the new tasks being laid on the public schools in the large cities is found in the appearance of a little textbook entitled *English for foreigners* by Miss Sara R. O'Brien of Springfield, Mass. The book is cleverly made. (Boston: Houghton Mifflin Co., 1909. 155 p. 50c.)

In *Civics and health,* Mr. William H. Allen presents an impressive argument for development of the work in school hygiene and preventive medicine. His book should be widely read by teachers for whom it contains many practical suggestions. (Boston: Ginn & Co., 1909. 432 p. $1.25.)

The new conditions under which our national government is being carried on are suggestively indicated in a book entitled *The federal civil service as a career,* by E. L. Foltz. The operation of the merit system is described and the practical working of the civil service set out in some detail. (New York: G. P. Putnam's Sons, 1909. 325 p. $1.50.)

For many years Stopford Brooke's little *Introductory primer of English literature* was much used in America, and now a new book of the same type, entitled *A new primer of English literature*, has just appeared, written by Professors Tucker and Murdoch of the University of Melbourne. London: George Bell & Sons, 1909. 216 p. 2s. 6d.)

XI

NOTES AND NEWS

The physiological basis of success

At the Winnipeg meeting of the British Association one of the most interesting addresses was that by Professor E. H. Starling, of the University of London, who, as president of the year in this section on physiology, took for his topic the physiological basis of success. From the full report in the London *Times* we take the following paragraphs:

Professor Starling began by pointing out that the physiologist had one guiding principle which played but little part in the science of the chemist and physician, namely, adaptation. Every phase of activity in a living being was a sequence of some antecedent change in its environment, and was so adapted to this change as to tend to its neutralization and so to the survival of the organism. This was what was meant by adaptation, which therefore must be the deciding factor in the origin of species and in the succession of the different forms of life upon the earth. In every case, whatever part of the living world we took as an example, we found the same apparent perfection of adaptation. Whereas, however, in the lower forms the adaptation was within strictly defined limits, with rise in type the range of adaptation steadily increased. Especially was this marked if we took those groups which stood, so to speak, at the head of their class. It was therefore important to try and find out by a study of various forms the physiological mechanism of mechanisms which determined the increased range of adaptation. By thus studying the physiological factors, which might have made for success in the struggle for dominance among the various representatives of the living world, we might obtain an insight into the factors which would make for success in the further evolution our race was destined to undergo.

EDUCATION BY EXPERIENCE

The factors which determined success in the struggle for predominance were, in the first place, foresight and power to react to coming events, and, in the second place, control of the whole activities of the organism by that part of the central nervous system which presided over the reaction. That animal therefore profited most which could subordinate the impulses of the present to the exigencies of the future. An organism thus endowed was still, however, in the range of its reactions, a long way behind the type which had attained dominance today. With the formation of the vertebrate type, and probably even before, a new faculty made its appearance. Up to this point the reactions of an animal had been what was termed "fatal," not in the sense of bringing death to the animal, but as inexorably fixt by the structure of the nervous system inherited by the animal from its precursors. The next great step in the evolution of our race was the modification of the nervous system which should render possible the education of the individual. The mechanism for this educatability was supplied by the addition, to the controlling sensory ganglia of the head, of a mass of nervous matter which could act, so to speak, as an accessory circuit to the various reflex paths already existing in the original collection of nerve ganglia. This accessory circuit, or upper brain, came to act as an organ of memory. Without it a child might, like a moth, be attracted by a candle-flame and approach it with its hand. The injury ensuing on contact with the flame would inhibit the first movement and cause a drawing back of the hand. In the simple reflex mechanism there was no reason why the same series of events should not be repeated indefinitely, as in the case of the moth. The central nervous system, however, was so constituted that every passage of an impulse along any given channel made it easier for subsequent impulses to follow the same path. In the new nerve center, which presented a derived circuit for all impulses traversing the lower centers, the response to the attractive impulse of the flame was succeeded immediately by the strong inhibitory impulses set up by the pain in the burn. The effect of such a painful experience on the new upper brain

must far outweigh that of the previous impulse of attraction. The next time that a similar attractive impression was experienced the derived impulse traversing the upper brain aroused, not the previous primary reaction, but the secondary one, viz., that determined by the painful impressions attending contact with the flame. As a result, the whole of the lower tracts, along which the primary reaction would have traveled, were blocked, and the reaction—now an educated one—consisted in withdrawal from or avoidance of the formerly attractive object. The burnt child had learnt to dread the fire.

THE FACULTY OF SPEECH

If we considered for a moment the vastness and complexity of the stream of impressions which must be constantly pouring into the central nervous system from all the sense organs of the body, and the fact that, at any rate in the growing animal, every one of these impulses was, so to speak, stored in the upper brain, and affected the whole future behavior of the animal, even the millions of nerve cells and fibers to be found in the human nervous system would seem to be insufficient, to carry out the task thrown upon them. Further development of the adaptive powers of the animal would probably have been rendered impossible by the very exigencies of space and nutrition, had it not been for the development of the power of speech. Every word was a shorthand expression of the vast sum of experience, and by using words as counters it became possible to increase enormously the power of the nervous system to deal with its own experience. Education now involved the learning of these counters and of their significance in sense experience; and the reactions of the highest animal, man, were for the most part carried out in response to words and were governed by past education of the experience-content involved in each word. As soon as experience could be symbolized in words, it could be dissociated from the individual and became a part of the common heritage of the race, so that the whole past experience of the race could be utilized in the education—i.e., the laying down of nerve tracts—in the individual himself.

On the other hand, the community received the advantage of the foresight possest by any individual who happened to be endowed with a central nervous system which transcended that of his fellows in its powers of dealing with sense impressions or other symbols. The foresight thus acquired by the whole community must be of advantage to it and serve for its preservation. It was therefore natural that in the processes of development and division of labor, which occurred among the members of the community just as among the cell units composing an animal, a class of individuals should have been developed, who were separated from the ordinary avocations, and were, or should be, maintained by the community, in order that they might apply their whole energies to the study of sequences of sense impressions. These were set into words which, as summary statements of sequence, were known to us as the Laws of Nature. These natural laws became the property of the whole community, became embodied by education into the nervous system of its individuals, and served therefore as the experience which would determine the future behavior of its constituent units. This study of the sequence of phenomena was the office of science. Thru science the whole race thus became endowed with a foresight which might extend far beyond contemporary events and might include in its horizon not only the individual life, but that of the race itself as of races to come.

RISE IN TYPE DEPENDENT ON BRAIN

In the evolution of the higher from the lower type, the physiological mechanisms, which had proved the decisive factors, could be summed up under the headings of integration, foresight, and control. In the struggle for existence the rise in type had depended on the central nervous system and its servants. Rise in type implied increased range of adaptation, and this increased range, from the very beginning of a nervous system, was bound up with the powers of this system. Whatever opinion we might finally arrive at with regard to the types of animals which we might claim as our ancestors on the line

of descent, there could be no doubt that Gaskell was right in the fundamental idea which had guided his investigations into the origin of the vertebrates. As he said, "the law for the whole animal kingdom is the same as for the individual. Success in this world depends upon brains." The work by this observer, which had lately appeared, set forth in greater detail the grounds on which this assertion was based, and furnished one of the most noteworthy contributions to the principles of evolution which had been published during recent years. We must not, however, give too restrictive or common a meaning to the expression "brains" used by Gaskell. The word implied the whole reactive system of the animal. In the case of man, as of some other animals, his behavior depended not merely on his intellectual qualities or powers, to which the term "brain" was often in popular language confined, but on his position as a member of a group or society. His automatic activities in response to his ordinary environment, all those social acts which we ascribed in ourselves to our emotions or conscience, were determined by the existence of tracts in the higher parts of his brain, access to which had been opened by the ruthless method of natural selection and which had been deepened and broadened under the influence of the pleasurable and painful impressions which were included in the process of education. All the higher development of man was bound up with his existence as a member of a community, and in trying to find out the factors which would determine the survival of any type of man, we must give our attention, not to the man, but to the tribe or community of which he was a member, and must try to find out what kind of behavior of the tribe would lead to its predominance in the struggle for existence.

POLITICAL EVOLUTION

The comparison of the body politic with the human body was as old as political economy itself, and there was indeed no reason for assuming that the principles which determined the success of the animals formed by the aggregation of unicellular organisms should not apply to the greater aggregations or

communities of the multicellular organisms themselves. It must be remembered, however, that the principles to which he had drawn attention were not those that determined survival but those which determined rise of type, what he had called success. Mere association into a community was not sufficient to ensure success; there must also be differentiation of function among the parts, and an entire subordination of the activity of each part to the welfare of the whole. It was this lesson which we English-speaking race had at the present time most need to learn. In the behavior of man almost every act was represented in consciousness of some emotion, experience, or desire. The state of subordination of the activities of all units to the common weal of the community had its counterpart in consciousness as the "spirit of service." The enormous value of such a condition of solidarity among the individuals constituting a nation, inspired, as we should say, by the spirit of service, had been shown lately by Japan. In our own case the subordination of individual to State interests, such as was necessary for the aggregation of smaller primitive into larger and more complex communities, had always presented considerable difficulty and been accomplished only after severe struggle. Thus the work begun by Alexander Hamilton and Washington, the creation of the United States, was still, even after the unifying process of a civil war, incomplete and marred by contending State and individual interests. The same sort of difficulties were being experienced in the integration of the units, nominally under British control, into one great nation, in which all parts should work for the good of the whole and for mutual protection in the struggle for survival. Just as pain was the great educator of the individual and was responsible for the laying down of the nervous paths, which would determine his whole future conduct and the control of his lower by his higher centers, so hardship had acted as the integrator of nations. It was possible that some such factor with its attendant risks of extermination might still be necessary before we attained the unification of the British Empire, which would seem to be a necessary condition for its future success. But if only our countrymen could read the lesson of evolution

and were endowed with sufficient foresight, there was no reason why they should not, by associating themselves into a great community, avoid the lesson of the rod. Such a community, if imbued by a spirt of service and guided by exact knowledge, might be successful above all others. In this community not only must there be subordination of individual to communal interests, but the behavior of the community as a whole must be determined by anticipation of events—*i.e.*, by the systematized knowledge which was called science. The universities of a nation must be like the eyes of an animal, and the messages that these universities had to deliver must serve for the guidance and direction of the whole community. At the present time it seemed to him that, altho it was the fashion to acquiese in evolution because it was accepted by biologists, we did not sufficiently realize the importance of this principle in our daily life, or its value as a guide to conduct and policy. Yet, according to their agreement with biological laws, the political theories of today must stand or fall. It was all-important that the people themselves should realize the meaning of the message which Darwin delivered fifty years ago. On the choice of the people, not of its politicians, on its power to foresee and to realize the laws which determined success in the struggle for existence, depended the future of our race. It was the people that must elect men as rulers in virtue of their wisdom rather than of their promises. It was the people that must insist on the provision of the organs of foresight, the workshops of exact knowledge. It was the individual who must be prepared to give up his own freedom and ease for the welfare of the community. Whether our type was the one that would give birth to the super-man it was impossible to foresee. There were, however, two alternatives before us. As incoherent units we might acquiesce in an existence subordinate to or parasitic on any type which might happen to achieve success, or as members of a great organized community we might make a bid for determining the future of the world and for securing the dominance of our race, our thoughts, and ideals.

Searchings of the Spirit at Harvard.

Writing in the *Harvard Graduates' Magazine* for September, Professor W. B. Munro tells some interesting things about the movement of academic opinion at Harvard. It appears that the existing system of requirements for admission to Harvard College, which has long been most seriously criticised elsewhere, is now being subjected to a scrutiny not wholly friendly or sympathetic within the college itself. Professor Munro naïvely asks whether standards of admission must not be set "with a constant eye open upon what the schools are doing and must not the real gauge of admission requirements come to be what the schools can do rather than what the college wants them to do?" This is real light beginning to shine in a hitherto insufficiently illuminated spot. Perhaps one may now have hopes that the colleges, Harvard leading the way, will grapple with the distressing situation as to Latin, which Mr. De Forest pointed out so clearly in the September issue of this REVIEW, and save that vitally important subject from scholastic destruction before it is too late.

Professor Munro also raises the question whether the policy of admitting to the Harvard Medical School only the graduates of some recognized college or university should not now be modified. He is here upon sound ground. To exclude altogether from a vocational school perfectly competent students simply because they have not previously taken a baccalaureate degree, is indefensible trifling with serious things. It may be pedagogics, but it is not education. The only disquieting thing about these stirrings at Harvard is that they are attributed by Professor Munro to uneasiness arising from a falling-off in the number of students.

The N. E. A. in 1910

The heavy vote of the directors at Denver in favor of San Francisco as the place of meeting for 1910 naturally gives that city the first place in the consideration of the executive committee, which must soon settle the question. Inasmuch as the vote was merely advisory, however, the matter is an open one and the highest interests of the Association itself must determine the choice.

Dr. Charles W. Eliot, who was president in 1903, has offered the suggestion that the going from one part of the country to another should be abandoned and that the meetings should be held in succession, say in New York, Washington, Chicago and Boston, where there is much to attract a large attendance and where there can be no question of adequate accommodations.

For 1910 Boston and Atlantic City are both earnestly in the field in addition to San Francisco, and Milwaukee, where the meeting of 1897 was held, has also been mentioned. Militating against the present availability of San Francisco are the very recent meeting in Los Angeles (1907), the far western point at which the meeting of 1909 was held, and the heavy travel of teachers to the coast during the past summer to visit the exposition at Seattle. On the other hand, San Francisco's hospitality is boundless. She is intensely in earnest in her wish again to entertain the Association, and a large local membership would be assured. The railroad conditions are likely to be the same wherever the meeting is held.

EDUCATIONAL REVIEW

NOVEMBER, 1909

I

THE BOY WHO GOES TO WORK

Life is found in the fulfilment of those relations to the world that are prophesied in our spiritual constitution;—as in the relation to work, to the family, to outside nature, and to the state. In most respects there exists at least the possibility of such fulfilment,—that which the world offers corresponding approximately to what nature has foreseen. The mother's love and appreciation meet the child's need as he feels it. She is much the sort of mother he would have made if the matter had been left to him. So plants and animals and younger children meet the fostering instinct that is in every child. So the stars, the sea, the land, the infinitely varied phenomena of nature, seem made to arouse and satisfy our instincts of awe and curiosity. Nature furnishes material suited to our hand and mind. Her water is very good to swim in, her land to run upon, her trees to climb, her mysteries to solve.

In the matter of self-support, also, nature's original provision was equally germane. Hunting, fishing, fighting; striking and throwing; running, dodging, lying in wait—the forms of activity which her industrial system required were exactly those prophesied, clearly enough, in our instinctive impulses. The adjustment, here as elsewhere, was once sufficiently exact. But it is not so now. We can not any longer live by hunting and war and foray, but must, in order to be self-supporting, content ourselves with tying threads, selling

ribbons, digging holes, or other even less apposite pursuits. Civilization has stept in and so altered the rules of the game that it is no longer our game as whispered to us in our inner consciousness. Nature is still aiming us as she did before, but life has side-stept. Some of our deepest instincts are thus left hanging in the air, calling for a fulfilment that does not exist, reaching out to do things that can not be done and will get us into trouble if we attempt to do them.

It is this side-stepping of industrial life that is responsible for a great part of the active trouble, and what is worse, for much of the dreary emptiness and waste of life to which civilization has given rise. The dislocation is especially abrupt and its results, accordingly, especially acute in the case of the boy who goes to work. I wish to speak especially of the boy of fourteen—the age at which the great majority now leave school and seek employment; but what I have to say applies in some degree to all who do so before they are twenty-one, and to the general problem of fitting human nature to industrial life.

To appreciate what this dislocation means we must bring before ourselves as vividly as we can what the boy of this age really is, and what are the dominant impulses of his life. Paul Sabbatier says it is impossible for grown-up people to recollect what it is to be twenty years old, and I do not think that remembrance of the immediately preceding period is much easier. But this matter of education is one in which we have to act, and some sort of appreciation of the creature we are dealing with is therefore necessary. We must, accordingly, recollect as best we can—try to get back in imagination to the mind we bore during that previous incarnation—even tho we have to admit that our recollection will always remain imperfect, and that our solution must be more or less tentative in consequence. What, then, is the boy in his teens?

Some difficulty arises at the outset from the fact that owing to the great and fortunate variety in human nature no two boys are alike, and that we can not even say that any one set of instincts is dominant in all. There is, for instance, the boy who apparently never wants to play, whose enthusiasm is

all for birds and bugs, or haply for electricity, or for mixing and producing smells of varied types—that which the wise call chemistry. And there is the boy with an exclusive, though it may be shortlived, passion for postage stamps, and the not uncommon one—tho nowadays in danger of being overlookt—who manifests a disconcerting affinity for books. Still, it remains true that boys (upon the whole, fortunately for the world) are extremely liable to be boys; that there is such a thing as the typical boy, capable of being described; and that the great majority are, upon the whole, fairly true to type.

I take it we shall all agree that in the typical boy in his teens (or at least in the boy who has reached the physiological age of adolescence) the gang or team impulse is both dominant and pervasive. Such a boy produces the gang almost as inevitably as bees swarm or birds build their nests. He is not merely gregarious—seeking the society of other boys of his age—but his gregariousness focuses upon one particular crowd whom he feels it desirable to meet every day, and as nearly all day as circumstances will permit. And when the chieftains are gathered there are usually matters of high concern to be considered, enterprises of great pith and moment to be undertaken, not individually, but by the whole crowd together in a more or less organized way. The games of this period are the great team games:—baseball, football, basketball, hockey, and the like. There is evident bias toward chasing, striking, throwing at a mark, toward the elements and the combinations of tribal war. Many other occupations, however, find team expression of some sort. Even swimming becomes water polo.

Rowing at this period is preferably in an eight-oar as soon as boats for the purpose can be got. Rhythm is an added attraction in this case, and is a characteristic expression, or at least an ally, of the gang. There is no such fusing of souls as under its influence; and no gang—any more than an army or church or nation—fully exists without it. The roaring of young men together in college yells or songs (the distinction is not always clearly marked) is of the same lineage as the war songs of Tyrtæus or the Marseillaise, and not wholly unrelated to religious music.

In short, the boy at this age is predominantly under the tutelage of the great human instinct to belong. He wants to share in a corporate personality, to act not as an individual, but as the expression of a social whole; and the preferred expressions of this desire are of the physical and warlike sort.

But the gang has laws for its members individually as well as for itself as a whole, its domestic policy as well as its foreign affairs. And especially it has a standard to which each member is required, not only by the other members, but by his own conscience, to conform. Every gang, like every college society and every club or association of every sort, has some sort of initiation, whether conscious or unconscious, to determine whether the neophyte measures up. This standard, in a boys' gang, has to do largely, like its external politics, with fighting; only here it is partly single combat that is in question. The gang spirit in this case—as in other cases, such as those of the striking and throwing instincts—is dealing with an antecedent impulse. The instinct of single combat is older than society, and, in each generation of boys, older than the gang. But the gang impulse takes it up and standardizes it, and adds its own peculiar sanction. The obligation upon the boy to fight upon due occasion, and to hold his own in the hundred forms of individual competition, is owed not merely to himself, but to the gang. He must in this respect be true to the crowd and uphold its colors. The definitely gang activities also impose their standard on the individual. Are you the stone of which this arch can be built? The general law, as it lives in each member, makes its requirements of him, implies an obligation to make good.

Now the essential thing to be considered in dealing with the boy of this age is the moral standing of these leading impulses, —of this great gang impulse especially, with its bias toward war and foray, and its sanction of individual contest. And the leading moral characteristic of these instincts is that they are of the sort to which men may safely devote their lives, to which their lives indeed must be devoted if they are to amount to anything. For these are of the outputting instincts whose issue is in achievement, whose satisfaction increases with their

use, and to whose permissible service there are no apparent bounds—the expressive instincts, as distinguished from the appetites whose end and appropriate limit is in the supplying of physical need. In our nature as active beings, they are the leading part, to which the rest is ancillary; the dictators of our accomplishment, the avenues of our total discharge. They are of the stuff of which our lives are made, not secondary like the hungers, not separable from ourselves, nor to be neglected without mutilation and defeat. They are of the same order and authority as the instinct of creation, father of all the arts, as the instinct of curiosity which all science exists to gratify, or as the nurture instinct, in obedience to which the mother loves and nourishes her child. The gang instinct, indeed, so far from being lawless, has this superiority, even to the other achieving instincts, that it is not merely lawful, but actually itself the very source from which all laws are sprung, the parent of law, the thing which all nations and all governments express.

It is not indeed to be maintained that obedience to these, or any set of instincts, constitutes of itself the moral life. Morality, I take it, involves looking at life as a whole and acting for the promotion of the best and most abundant life in ourselves and others. But these instincts do constitute the spiritual substance, the raw material, out of which the lives of all of us are built. They are of that antecedent ethics—of those aboriginal, constituent interests which it is the business of the moral life to serve.

And the gang instinct is not toward self-indulgence, but toward self-discipline and subordination. The gang is more strict as well as more strenuous in its requirements than any grown-up society; and its ethics incline to the ascetic rather than to the hedonistic school. It is not for the love of pleasure, but rather—so far as his action is not purely instinctive—for self-conquest and the joy of defying pain that the boy seeks these peripatetic groups of the youthful philosophers of his neighborhood. He turns to the gang for the same reason that the English father sends his son to boarding school, or that the Spartans subjected their young men to such a

severe course of moral discipline; because its standard is a hard standard, and one less falteringly upheld than any that his elders have set up. The gang, in short, holds with what Mr. Royce has called the defiant or Titanic school of ethics,—that of the hero who will not yield to gods or men. Its spirit is fundamentally a moral spirit. It represents, I believe, the natural and dominant note in the moral nature of the boy in his teens. It is, accordingly, the boy's conscience, as the Lord has given it to speak, that we are dealing with when we attack this subject of the gang and his allegiance to it.

So also the revolt of the gang against a life too suddenly civilized is moral. It is nothing new or whimsical, but is at least as old as Abel. So far from being a matter of whim, it is the eternal protest of the manly mind against a way of life not suited to a man. The young savage scorns all civilized pursuits as women's work. So does the male of the barbaric age. From Nimrod to Roosevelt, war and hunting, the instinctive occupations of the gang, are those most natural to the kings of men. The famous Persian curriculum was to ride and shoot and speak the truth. A free citizen of Greece may engage in war or politics, but even the fine arts too anxiously pursued are held rather fit for slaves. The same is true of the upper ranks of European society today. In all aristocracies war and politics—the external and internal expressions of the gang—are the only pursuits not held derogatory, while the only entirely respectable title to property is that which can be traced back to some form of violence. So, or similar, was the code in our own South before the war. So it is now among those races in which temperament still rises superior to education. And the point is, in all these cases, that the objection to civilized pursuits is ethical. It is not hard work, but moral degradation that is feared. Menial occupations are held by the Greek philosophers inconsistent with the cultivation of virtue, just as in European society today they are not considered the occupations of a gentleman.

These are not the ethics of snobbishness. The snob takes aristocracy as he finds it: the vulgarity is in his attitude toward

it, not in the thing itself. The ethics of the gang, of aristocracy, are the ethics of the age of chivalry, of King Arthur and his Knights, of the Charlemagne of legend and his peers, They are the only code that has captured the imagination as well as the intellect of mankind. The young man's protest against our civilized pursuits is that of eternal youth against the fallacy that the world is old. It is the protest of the soul of man, perpetually renewed, against the notion that social laws are fixt, masters of life, and not its servants.

It is not merely the young man, but civilization, that is on trial. Civilization must make out a case. It must show that it has not neglected life itself in its devotion to the means of living. The Indian who finds himself at the parting of the ways—foresees that if he says, Yes, now there is no stopping-place between the free life of the plains, in which he was brought up, and becoming the drudge of our shops and factories—is not so wholly wrong when he chooses rather to die an Indian than submit. It is my own soul and genius that it is my business to fulfil. It is the only soul I have. If society does not offer what is life to me, is it not my duty to rebel? Civilization must show the young man a way of life to which he can without degradation submit, or it can not rightly even hope for his submission.

This, then, is the moral situation as it confronts the boy who goes to work. He feels himself a warrior, a hunter, a knight, member of a fellowship of such. His imagination seems to remind him of evenings when he and his companions rowed out from the creek by moonlight, hoisted the dragon flag and sailed across to raid the hostile shore; stole down from the hills upon a cattle-driving exploit; crost the ford to rescue some Kinmont Willie; or watched for deer. Is laying brick a fulfilment of this dream? Or tending counter; or adding up columns at a desk? Charging up interest in a bank is of very inferior interest to charging up the bank, as he had dreamed it. Can he with self-respect consent to squeeze his life into the strait-jacket of such pursuits,—his life that should have been active and brave and free,—can he rightly permit it to be cramped into such mean dimensions, his na-

ture like the potter's hand so pitifully subdued unto his calling?

We have here, in this maladjustment between the native tendencies and ideals of the boy who goes to work, and the industrial situation as he finds it, the elements of a tragedy of that classic and inevitable kind which consists not in the defeat of a particular scheme of life, but in a conflict of ideals which renders all schemes of life alike impossible. And often under our social arrangements as they now exist this potential tragedy is realized. What then can we do to mend a dislocation which causes such wreckage and waste of spiritual force among our boys and young men, or to mitigate its consequences?

There are, in general, three ways of lessening this dislocation: by fitting the boy to the industrial world, by fitting the industrial world to the boy, and by providing an overflow.

By the first I do not mean lopping human nature down to fit the bed we have made for it, but bending it so that it will grow and express itself under the unavoidable conditions. The aim of all is not efficiency, but integrity, not increasing industrial output, but promoting life.

I. FITTING THE BOY TO THE WORLD

1. Under this first head—fitting the boy to the world—the first thing to do is to cease to unfit him, to permit the powers that underlie industrial pursuits, along with all his other powers, free opportunity for development. Such free opportunity, if we follow nature's law, will be continued at least up to the age of fourteen, or to the period of adolescence which comes at about that time.

Man as nature made him is a great deal more of an industrial being than our modern education has permitted him to be. There are other instincts besides those of hunting and fighting,—instincts especially aimed toward useful labor,—which are under our present school system systematically starved. There is the creative instinct, which impels little children to make houses and mud pies, small girls to sew, and small boys to handle tools. This instinct, if we gave it free

play—if we did not lock up the materials from the child, or the child, in school, away from the materials—would drill the maker in him. Man is an artificer by nature. It is by shutting the door on nature that we make a barbarian of him in this respect.

Then there is the nurturing instinct that makes every little girl nurse her doll, that impels every child to acquire and care for plants and pets, that makes them love to tend the horse, to feed the pigs, or milk the cow. This instinct also we sterilize by permitting very meager opportunity, or none at all, for its expression. Allowed its natural scope it would have made a nurse, a teacher, a fosterer of life, of every child. The rhythmic instinct that sets every phrase and motion of early childhood to music is only now regaining, thru singing and dancing and drawing, its normal ascendency in education. Its power to set mechanical drudgery to music, illustrated by every European washerwoman, is only beginning to be recognized. Even the instinct of curiosity, or scientific impulse, which we do cultivate, we permit only such feeble methods of expression as afford but a nerveless training compared to what it naturally exacts. Instead of the drill in investigating the causes of actual phenomena that it would have provided, we confine it almost entirely to abstract problems, largely in grammar and arithmetic. And even in these we mostly supply the solution ourselves and ask the child to learn it, thus resterilizing our curriculum already sterile of methods applicable to productive life.

Our children are far less prepared for industrial life than can be the case with those of any savage tribe. To make small spears and bows and use them, to help grown people in the hundred necessary domestic arts, is a far better preparation in this direction than any that our schools afford or leave time for. The only part of our children's nature that now gains executive expression—that is to say, actual liberation into the world of action—is the barbaric part. For the running and fighting plays that can be carried on in the street or on the playground, and do not require tools or much material, some sort of opportunity exists—very imperfect, it is

true, but far better than can be found, at least in the case of the city child, for quiet play in satisfaction of the nurturing, creative, or scientific instincts. In our civilized life it is the civilized productive side of the child's nature that gets wholly starved.

I am not one of those who think that even our present schools are upon the whole an evil. The training they give for social and intellectual life, thru language and arithmetic, and thru habits of regularity and order, more than makes up for the industrial inaptitudes they cause. But they do cause such inaptitudes, and in the most wanton and unnecessary way, by neglecting the industrial faculties, while taking up the time in which these might otherwise be trained.

What I am advocating in this first proposition is not definite industrial training, not specialization, but on the contrary the all-round cultivation of the child. I would advocate the same even if it had no bearing on industrial life; for I believe that up to the age of adolescence the child's business is to grow, not to prepare for a vocation but to become a man, the kind of creature to whom our industrial life and all else we institute must be made to minister and conform. What I desire to point out is that when we do provide an all-round education we shall release in our children industrial powers which we now deliberately starve. We shall cease to train them away from the serviceable life that nature intended them to lead. I agree absolutely with those who uphold culture rather than direct preparation for practical life as the true aim of primary education. I disagree only with the belief held by some of them that culture of the human being consists in developing only one corner of his nature, and that in a peculiarly passive and ineffective way, and in thus incidentally unfitting him for useful life.

When by truly all-round education we shall have restored to our children those main strands of their being that are now starved out of them, we shall find them possest of a nature that it is not so easy to defeat. The first choice or preferred expression of the boy's life will still be toward war and foray, and there will still be real spiritual loss from insufficient op-

portunity of expansion in these directions. But he will then have a strong second choice to fall back upon. And a second choice is with Dame Nature a vitally important thing. It is true that the old theory of the general applicability of human force is untenable. Man power is not steam power, to be applied to a guillotine or a church organ impartially. It must act toward its prescribed ends or not at all. But it is also true that human nature has more than one end toward which it moves; and (a crucial point in this matter) there is in living things a wonderful power of substitution; life that cannot find its way by one channel will often make out marvelously well by another. If the top of a spruce tree is cut off it will make use of one of its higher branches to carry out its natural spire form. Men learn, if necessary, to see with their ears or hear with their sense of touch. Conversely, if a strain is put upon one portion of the human organism, as on the legs or brain, power will be transferred from the rest, and the member under fire will not be permitted to succumb until the resources of the whole have been exhausted.

And so with the total expansion of the vital force. If a preferred method is denied, it will find issue thru such channels as remain. The genius that would have made war its medium will force its way in business. A life denied utterance in music may find it in science or thru the nurturing instinct. Just as the flavor of personality lies in things too subtle to depend upon the road it travels by, so the total genius of the man will somehow arrive so long as any of the main instinctive issues are left open to it.

And each major instinct is itself capable of a great variety of statement. There used to be an artist, familiar to frequenters of European galleries, who painted with his toes. The prehensile and manipulating instincts evidently lie deeper than the separation of the paths which lead to the hands and feet respectively. The building or creative impulse lies deeper still, and appears under a vast variety of forms. Man will sing in wood and stone, or build in sounds. Sir Henry Main says that the Roman law—the great practical system of dealing between man and man, that has survived the test of cen-

turies and nations—owes the universal character which has given it currency to the Greek sense of form, derived by the Roman prætors from the Stoic philosophy. This most colossal of the works of common sense is, in its peculiar excellence, one of the world's great monuments of plastic art. Evidently the creative instinct is not easy to defeat.

So the nurturing instinct, which begins from mother love, has worked back from that original utterance until it has permeated our whole nature. We are nurturers now, both sexes, and for every kind of work that deals with the fostering of life. The instinct makes not only teachers, nurses, doctors, farmers, but molders of men in every sort of occupation. A leading banking house I know is in all essentials a kindergarten of young business men, the expression of the mother nature of its head. Even successful generals, like the successful captains of athletic teams, are often affectionately known as "Father" or even as "Old Mother So and So."

And so among them the constructive human instincts cover so vast a territory that it is difficult to find a form of occupation wholly outside their scope. Applicable to very drudgery as such, there is, as we have said, the rhythmic instinct—saviour of generations of rowers and runners, of spinners and knitters in the sun, by setting their drudgery to a lullaby. So soothing, indeed, is the purring of routine that it is perhaps more often an allurement than an obstacle.

Even the hunting and fighting instincts are not wholly disappointed in modern industry. Etymology seldom lies, and there must be some reminiscence of the chase in anything named "pursuit." I recently looked up a quotation in Herodotus, and the sort of breathless sensation of following up and finally seizing on the game was not distinguishable from what I experienced a few weeks later in the pursuit of trout. As to the fighting instinct, nature's magnificent blanket clause, applying to obstacles as such—the Hercules of our nature whose delight is in the cussedness of things—some use of this, tho not usually in its aboriginal form, is absolutely certain to come in.

The legend of Proteus is the story of all men, a little ac-

celerated as to time, but rather understated as regards the possible variety of incarnation. The doctors have now adopted the name "proteid" for the very flesh of which our bodies are composed.

And the instincts are not only broad-based: the center of them is always on achievement, on getting the thing done. Nature is of a very practical—of an essentially Philistine or get-there—disposition. The essence of her message is always "Thou shalt arrive." Not to wrestle and strike, but to conquer; not to run and throw and lie in wait, but to bag the game, is the focus of the war and hunting instincts. Complete satisfaction indeed is only where the instinctive end is gained by the instinctive means. But where the choice is between means and end it is always the end that rules. The boy has been pursuing thru all his childish games a phantom stag. In the opportunity of grown-up achievement the real stag comes in sight; and the weight and passion of the instinct will bid him follow wheresoever the chase may lead. There is more real life in making an actual living by tending counter than in pious adherence to the ancient ritual thru breaking and entering, raiding apple stands, or becoming a gentleman sport. Nature is no pedant. Contemporaneousness is of the essence of her law. Up-to-date infraction is more germane to her intention than obsolete fulfilment. So that the very instincts themselves are, in one way, on the side of the boy's submission to whatever actual conditions may impose. They will rather pull him cross lots to the end than take him round by the road that has ceased to lead there.

2. The next thing we must do after preserving the whole nature of the child alive up to the age of adolescence is to precipitate his nature thus preserved in the direction of some kind of work. It is not necessary to train at once for any special trade; the immediate task may be to prepare for the university, deferring specific training for another eight years. What is necessary is that education from this time on shall have a future to it, shall be felt by the child as the beginning of preparation for real life.

There is a characteristic of the adolescent which is of car-

dinal importance in this connection, one which all teachers recognize, at least in its more obvious forms. All know, for instance, the big boy of fourteen who hates childish lessons, and can make nothing out of them, but who will wake up and show a manly power to grasp real things if a way of getting hold of real things is opened to him. Partly this change seems the result of a defining or specializing tendency. This is the time when the individual bent begins to declare itself, vaguely or definitely, toward some particular sort of work or in a general direction, according to the extent to which individual bent in a particular case exists.

But chiefly this tendency to specialize is a symptom, or direct result, of a more fundamental change. The great thing that is happening is the shifting of motive from impulse toward particular achievements to a thirst for the achieving life. What has happened is the coming of a future into the child's world. The idea of his own life and place has come to him, and his desire is now toward that. And with the idea of a future comes the vision of the real world in which that future lies. He begins to scrutinize the actual conditions under which his desires and ambitions have got to be wrought out. So that besides the instinctive tendency to specialize there is the perception that he must specialize if he is to be somebody, and the consequent determination to do so. The true explanation of the lout of fourteen back in the sixth grade of the grammar school, and apparently incapable of advance in lessons that the younger children easily learn, is that his heart can no longer respond to childish things, but awaits the call of the reality to which it is attuned. What renders him deaf to the instincts in their childish form, urging him from behind, is the sound of the rapids ahead, among which real deeds are to be done. It is the call of the rapids that must henceforth govern.

And what is the center of this desire to be somebody, to take his place in the real world, to be a man among men? What is it but the gang desire to come up to standard, to pull his weight in the boat, the old gang instinct to make good? The heart of this instinct, as of every other, is not in the

means, but in the end. The gang finds its first and most natural expression in raid and foray; but under all this is the central desire to belong. That there shall be a gang, not that it shall do particular things, was nature's dearest object in laying the foundation of this impulse. And as belonging, not the form of it, is the heart of his desire, so will the boy hold to real membership, under real conditions as they exist, in preference to the observance of any form of membership from which the virtue of actuality has escaped. What he wants is really to belong, to be in it in the grown-up world, to assume the *toga virilis,* to be admitted into the fellowship and councils, to share the responsibilities and undertakings, of the clan. He would desire that such fellowship should express itself under the form of raid and foray if it could be so, but as between form and substance it is the substance every time that he will choose.

And as he comes to appreciate the fact that making good in the grown-up world involves industrial efficiency—that the game now is the industrial game, and that the industrially incompetent are not really in it—it is the gang instinct itself that impels him to the acquiring of such efficiency, more strongly than any other force could do. He will feel it to be a pity that we can not all be knights and mighty hunters before the Lord, but given the impossibility of being such in earnest, he sees that there is more of real life in tending to business in our plebeian way than in playing at Johnny War after the fashion of aristocratic survivals. Verily the first commandment of the gang spirit, as of the code of manliness in all ages, is: "Thou shalt play the game."

It is at this age that, under the pressure of the gang instinct, boys begin to practise their games in ways that are far from amusing, for the sake of ulterior results, and it is the gang instinct that in the main must carry them thru the drudgery that the acquiring of industrial efficiency involves. The cross-lots power of instinctive impulse is here at its full strength. For the end is now the distant one of the total accomplishment of a life, and the desire is in a measure proportional to the desert spaces that lie between.

It is, in short, the gang that must drive out the gang, thru the boy's perception that the old gang occupations are child's play, and not the work of life—that the gang, in short, is not the real gang, but its kindergarten. It will help in this expulsion if you will offer the instinct other grown-up fulfilments besides the industrial. Admit the young man into your councils; above all, receive him into political alliance. Politics is a direct instinctive manifestation of the gang. It is the best adult game there is, and the one most attractive to the young,—a truth that the professional politicians have long since found out and acted on. Their name of "students" for their heelers-in-training shows insight as well as humor.

From birth to adolescence is the purely instinctive age, during which the various constituent impulses assert themselves confidently and unequivocally as masters of the child's growth and education. Each exploit, each achievement, is during this period sufficient to itself. The mud pie is an ultimate and sufficient reason for the cost of making it, the conferring of last tag is its own reward. The rest of infancy is the period of apprenticeship—purely instinctive also in a sense, only that the instinct itself demands a test that is not instinctive. The social element of making good is now an indispensable article in its requirement. The two motives of work and play are thus combined; only they are both really play motives—that is to say, ultimate and self-justifying instincts—in the last analysis.

The conclusion, so far as the boy who goes to work is concerned, is that he should not go to work. At least he should not be permitted to go into any occupation that does not include education toward his ultimate efficiency. The dead-end occupation into which so large a proportion of our children go, which neither fits the gang impulse in its primal form nor satisfies the gang instinct to make good, combines all possible disadvantages, and is the worst influence to which they are or could be subjected. The seven precious years of instinctive apprenticeship, during which his nature is at the same time plastic and passionately focused toward this very end of becoming an effective member, must not be lost. If the path

from soul to utterance, from native power to socially effectual discharge, is not broken out now, it never will be, and his real life will never find its channel.

This also we desire for the sake of culture, not for the sake of industry; not in order that the man shall make more goods, but that the making of the goods may better make the man.

II. FITTING INDUSTRY TO THE WORKER

Besides leading the nature of our children to fit our modern industry, we must do far more than we have dreamed of doing to make our industry fit the normal life. Civilization has been so absorbed in producing the means of living that it has forgotten to leave room for life itself. What is the use of having more clothes, or even more beautiful ones, if we have no bodies fit to put them on? I remember reading the remark of an economist, from whose mind the intent to be funny was as far as possible removed, that the happiness of the worker was a good thing, as it tended to increase production. The next lesson set down for our civilization to learn is that the largest dividend from work is in the joy of doing it, and that in this form of return lies the great undeveloped resource of every country. There are two principal methods in which this portion of our moral revenue can be increased: first, by the adoption of Ruskin's advice that industry shall be made more expressive of the creative impulse; and, second, by the greater introduction, thru industrial coöperation, and by responsibility-sharing, of the element of team play. When the worker can feel that the trade mark of the factory is his flag, that he shares the personality embodied in its product, there will come new life both to him and to the industry, and incidentally a degree of material success of which we have not yet dreamed.

III. THE OVERFLOW

But even after we have done our best to train the child's nature in the direction of modern industry, and to correct our industry to conform to eternal human nature as it declares itself in the child, there will still remain in many industries a large part of the worker's nature unfulfilled. There are—and perhaps, do our best, there always will be—occupations in

which a man can not be even approximately contained, into which we should be loath to find that any of our children could be completely packed. It is rare, indeed, that any occupation, stretch and bend it as we may, fully satisfies a given personality. Our quart of holy spirit will not go into the pint measure we have prepared for it.

The school must accordingly provide an overflow. Not only the grammar school, the high school, and college, but the very trade school itself must make deliberate provision for the development in every boy and girl of some method of expression outside of what their probable occupation can afford.

1. One great means of such expression lies ready to our hand. I remember a Swedish sailor on a yacht I was on, who had once saved money and had owned a little schooner of his own, and lost her, and seemed a broken-hearted man, who went on deck every night after his work was done, and played on a tin pipe some of his native music. I suppose that little pipe was all that kept him alive. The Italians have much to teach us in this respect. The thing most terribly left out of our Anglo-Saxon life is the love of beauty. The first thing one notices on going to Italy is that, however poor the people are, they are never without a true esthetic life. The cabman points out to you not only the conventional sights, but the sunset that strikes his fancy, and assumes that you as a man and brother must sympathize. If civilization has balked some of our native instincts of fulfilment in their primal form, it has found in science and art fuller and more lasting satisfaction of them than nature ever gave, or than the savage can conceive. Art is the fulfilment of our creative instincts in richest and most elaborated ways; it twines and multiplies together its interpretations of the sense of form, of rhythm, of balance, of speed and space and mystery, up to a climax of which, without its aid, we never could have dreamed. It invents new blends and combinations, with new and excellent results. Art is play in its intensest, most sublimated form. The great artist is everywhere acknowledged as the great genius—that is to say, the interpreter of the inborn instinct of the race. The satis-

factions, in science, of the great human instinct of curiosity are, perhaps, as deep as those of art. Science also is play; and, to many men, in its most fascinating form.

"Not in the ground of need, not in bent and painful toil, but in the deep-centered play-instinct of the world, in the joyous mood of the eternal Being, which is always young, Science has her origin and root; and her spirit, which is the spirit of genius in moments of elevation, is but a sublimated form of play, the austere and lofty analogue of the kitten playing with the entangled skein, or of the eaglet sporting with the mountain winds." [1]

2. Finally, there must be fulfilment provided for the team instinct as it stands, some extra rail laid down to keep the train from destruction if, after the best we can do to give it the right list, and to straighten the track, the curve still proves too sharp. Protean as our nature is, much as we shall learn in the way of substituting a newer fulfilment for the old, there will still remain much vital force, committed to expression in the ancient way, and that must find such expression—whether legally or in the form of mischief and law-breaking—or run to waste. Provision for team expression of the ancient physical sort must still be made. Our playgrounds must be kept open at those hours when the younger children do not need them; in the late afternoon, and in the evening, by electric light, for skating and football. There must be places provided where the young men can meet in the evenings, and opportunity for quiet games and for theatricals. Long walks, and hare and hound runs, can do much to satisfy the gang impulse on its raiding side.

Get the child into the job; modify the job to fit the eternal human nature in the child; provide an overflow: these constitute my prescription for mending the dislocation now caused in youthful lives by the side-stepping of civilization from nature's path.

JOSEPH LEE

BOSTON, MASS.

[1] *Mathematics,* a pamphlet by Professor Cassius Jackson Keyser of Columbia University. (Columbia University Press, New York, 1907.)

II

THE NON-URBAN HIGH SCHOOL IN MASSACHUSETTS AND NEW YORK

II. LOCAL ORGANIZATION AND MANAGEMENT

In the October number of the EDUCATIONAL REVIEW we discust the relations of the state to non-urban high schools in Massachusetts and New York. The present paper will describe the local organization and management of high schools in places with a population of less than 8,000.

The local unit in Massachusetts is the town or city, the county having nothing to do with education except to maintain and manage truant schools. The town meeting determines the size of the appropriation for schools. Their management is by law vested in an elected school committee, which has "the general charge and superintendence of all the public schools," and may even exceed the appropriation. The actual administration, however, is delegated to the superintendent of schools, who has no specific powers except such as are given him by the school committee.

In New York the local unit for education is either the common school district, the union free school district, or the chartered city. Altho common school districts sometimes open high schools, they seem to have no legal authority to do so; hence it is with the union free school district that we are especially concerned in the study of non-urban high schools. As far as possible the people manage the school affairs in primary assemblages; but because of the growth of population and of school business, the board of education of necessity has greater powers than the trustees of a common school district. The board of education consists of from three to nine members, one-third of whom are elected each year. It employs duly licensed teachers and fixes their salaries; makes rules of

discipline; prescribes the course of study (within certain narrow limits); regulates the admission and transfer of pupils; adopts textbooks, and may furnish them; purchases sites and erects buildings when the district meeting has so voted; and cares for school property, whose title vests in the board of education, a corporate body. A peculiar and important power, similar to that of the Massachusetts school committee, is that the board may legally levy taxes in case the district meeting neglects or refuses to vote the necessary money for teachers' salaries.

Massachusetts has a system of district supervision that many consider the best that has yet been devised in the United States for reaching small towns. Lack of space forbids any detailed exposition of this interesting and suggestive scheme. Small towns that have not already the services of a superintendent of schools must unite to form superintendency unions. Practically all, if not all, of the towns have already complied with this law. To unions that have fulfilled the prescribed conditions the state pays $750 toward the superintendent's salary, and $500 towards teachers' salaries in the union. While it is probable that the union superintendents have a greater direct influence upon elementary than upon secondary schools, yet they unquestionably strengthen the educational system as a whole; and any improvement in the elementary schools is bound to react favorably upon secondary schools, which receive elementary graduates and build upon the elementary curriculum.

The great majority of the smaller New York high schools are without the local professional supervision that reaches every locality in Massachusetts. A union free school district with a population of 5,000 may employ a superintendent of schools, towards whose salary the state pays $800 annually. About thirty, or approximately five per cent. of the non-urban high schools are thus under local superintendents, who seem to give about equal attention to the elementary and the secondary schools in their charge. The school commissioners, who are popularly elected, may or may not have some expert knowledge of education; besides, their territory is so large that

even an expert could not give anything like close supervision. Dr. Draper strongly advocates doing away with the present school commissioner districts, and dividing the state into a large number of supervisory districts.

In studying the actual administration of non-urban high schools we are hampered by a lack of extended personal visitation and observation. The buildings are, of course, not entirely satisfactory. The facilities for science work are inadequate in New York; in 1905 only thirty-two per cent. of the schools outside of Greater New York had special laboratories. The apparatus was often unsuitable and sometimes inaccessible. Several years ago Mr. Macdonald investigated 244 high schools in Massachusetts; 141 had suitable buildings, 27 fair, and 76 poor. Out of the 244 schoolhouses, the sanitary condition of 146 was ranked excellent, of 38 fair, and of 60 poor. As was to be expected, satisfactory conditions existed oftener in the cities than in the small towns. Both states no doubt show a slow but steady gain in this regard; and the New York State Education Department can bring to bear strong pressure for the improvement of material equipment.

In New York the "academic departments" are built upon an elementary course of eight years. In 1897-1898 a considerable majority of Massachusetts high schools were preceded by nine rather than by eight grades; in our opinion, however, the tendency is to reduce elementary courses from nine to eight years. In New York the state pays twenty dollars tuition for about ten per cent. of the public secondary pupils—and these are all from rural districts. One of the ways by which they may qualify for admission to high school is by passing the Regents preacademic examinations. While this system is not universal, its extent is shown by the fact that in a recent year there were about two hundred thousand of these papers. As Massachusetts has no such system it would seem that the transition from the elementary to the secondary school is easier than in New York.

The normal schools of New York admit graduates of the course prescribed by the Commissioner of Education for admission to state normal schools and city training schools, but it

is necessary to have a certificate based upon the preliminary and academic examinations. Entrance to the State Normal College at Albany is by the Regents certificate, or the certificate of the College Entrance Examination Board, as well as by examination. Graduates of Massachusetts high schools on the certificate list of the New England College Entrance Certificate Board may be admitted to any state normal school without examination in any subject in which they got eighty per cent., as certified by the school principal. Candidates from high schools that are not on this list, but are approved for the purpose by the State Board of Education, may enter without examination. Thus it is clear that the articulation between the high and normal schools is the better in Massachusetts, making it easier to pass from one to the other.

A wider gap exists between the high schools and the colleges. Admission from New York high schools to the leading universities depends on passing examinations, either those of particular institutions, those of the College Entrance Examination Board, or the Regents examinations, upon which there is issued a certificate that is accepted for entrance by many of the leading higher institutions. Similarly, admission from Massachusetts high schools to the most important universities of the East depends on examination; but graduates of high schools certificated by the New England College Entrance Certificate Board are admitted without examination by the strong colleges of the East and by at least some of the great universities of the West. The connection between the high schools and the colleges is much less close in Massachusetts and New York than in some of the Western states, notably California.

Probably the most influential factor in any school is the teaching force. Teachers in Massachusetts high schools are examined and certificated by the school committee, while in New York the state issues their certificates. Outside of Boston, less than one-fourth of the teachers have anything like a permanent tenure of office after probation. Most cities and towns elect teachers annually; in 1905-1906 only eighty-two communities had taken advantage of the law that permits school committees to elect teachers after one year "to serve as

such at the pleasure of the committee." Altho New York seems to place no limit upon the term for which boards of education may contract to employ teachers, the contract is usually for one year. Teachers may be removed only for cause. Towns in Massachusetts and New York are allowed by law to establish pension funds, but probably no villages avail themselves of this provision or grant sabbatical leaves of absence with pay.

The partial statistics in the report of the United States Commissioner of Education for 1907 indicate that the number of teachers to the school is not very different in the non-urban high schools of the two states; in the average high school of this size, however, there are one-third more students in Massachusetts than in New York. In New York about thirty-six per cent. of the secondary instructors are men, as compared with thirty per cent. in Massachusetts. Most of the men at work in the small high schools of New York are principals; the same is probably true in Massachusetts, in spite of the complaint that the principalships are falling into the hands of women. In the smaller places of New York one person is usually principal of the secondary and elementary grades, but in Massachusetts he devotes all of his time to the high school.

Our figures indicate that with the Massachusetts system, faulty as it is, of lay examination and certification, its teachers are on the whole better trained than those of New York. An attempt to increase the number of well trained high school teachers is made by the Bridgewater (Mass.) Normal School, which gives a four-year course based on high school graduation, and designed to prepare for secondary teaching. The same school also offers a course of one or two years for college graduates. New York has a State Normal College, with a four-year course, and with the power to confer degrees, for the training of high school teachers; for college graduates it has a one-year course leading to the degree of B.Pd. The low ratio of college graduates in New York—forty-one per cent. of the principals and thirty-seven per cent. of the assistant teachers—is attributed to an insufficient supply of college

graduates, attractions of other professions, etc. Outside of cities the man principal receives on an average $977.37; the woman principal, $742.56; the man assistant, $716.95; and the woman assistant, $490.43. For economical reasons, therefore, Dr. E. J. Goodwin thinks college graduation can not be required for a license to teach in the New York secondary schools, even tho we can not have "adequate and scholarly instruction without it." No statistics are available for the salaries of Massachusetts high school teachers. An indication of the low salaries is found in the argument that since the small towns are unable to pay sufficiently large salaries, the state should give more help than at present. Some such plan as that employed in California, whereby the state aids in the payment of the salaries of high school teachers, might be feasible for Massachusetts and New York, altho there might possibly be greater objection than in California to paying heavy state taxes.

A comparative statement of the extent of their experience is not at hand. For Massachusetts, however, Mr. Macdonald states that the teachers in high schools receiving the state grant of $500 are as a rule fresh from college, with little or no experience, but with many faults. In New York the majority of beginning teachers in high schools and academies are either ignorant of the principles of education and of the art of teaching, or else have the pedagogical training of the normal school without the broad scholarship of the university.

From what has been said, it is very evident that there is need for improvement of teachers in service. Both states conduct teachers' institutes, which were described in the former article. The best means, however, of making teachers more efficient is efficient supervision by superintendents. It has been shown that Massachusetts has a system of professional supervision covering the whole state, while New York has no such provision for towns of less than 5,000.

The course of study is determined in Massachusetts by the school committee of each town; besides the subjects selected from the elementary curriculum there shall be taught "such additional subjects as may be required for the purpose of pre-

paring pupils for admission to state normal schools, technical schools, and colleges."

In New York "local boards of education by a process of selection and adjustment adapt a curriculum, which, in their judgment, is suited to local needs." But the State Education Department effectively controls the courses in all secondary schools that are members of the University of the State of New York, that receive money for the tuition of non-resident pupils, or that prepare students for normal schools.

In both states we find that normal schools thru their entrance requirements influence high school curriculums: in Massachusetts thru adaptation of individual high school courses of study, altho normal schools recognize any good four-year high school course as satisfactory; in New York thru a normal course prescribed by the Commissioner of Education as preparatory to state normal schools. The normal course requires eighteen periods a week for four years, including English (four years), algebra, plane geometry, ancient history, American history and civics, English history, biology, physics, and two years of a foreign language. This course bears on high schools with greater weight than does the requirement that members of the University of the State of New York must offer certain subjects, or even than does the detailed curriculum outlined for schools receiving non-resident students at state expense.

Each Massachusetts high school feels obliged, in order to maintain its prestige, to prepare its students for admission to higher institutions. In New York there is a thoro-going system of Regents examinations, which not only qualify successful students for entrance to various colleges, but are indeed compulsory in the last two years of high schools desiring to receive state aid. This system of examinations has resulted in the issuance every five years of the Academic Syllabus, which outlines in detail the work in each course. Requirements of particular colleges must also be met.

Thus to a large extent higher institutions not only determine the standard to be attained in each subject, but also the content of the curriculum. In addition there is the public sentiment

that demands instruction suited to the interests and needs of the large majority who do not go to normal school, technical school, or college. As a result, the small high schools of both states usually offer as many courses as the large and strong ones. The state educational authorities of Massachusetts feel that a serious conflict between college preparatory work and the common branches is inevitable unless the colleges and schools find a common ground. Perhaps there will be no escape from college domination until the colleges accept any good four-year high school course as an adequate preparation.

In 1908 the Massachusetts Council of Education made a comprehensive report based on circulars sent to all the superintendents in the state. It found that because of tradition and college entrance domination, there is no general movement to give the training, discipline, and culture half consciously demanded by communities. There is, however, a general desire for the introduction of manual training, domestic science, and business studies, and in several cases a demand for agricultural and trade courses. There is also a strong wish to adapt school subjects to local surroundings and industries. But many schools are unable to extend their present curriculum, and even have great difficulty in carrying out the existing program.

Commercial studies have gained a firm footing in the high schools of Massachusetts, and are no doubt one factor in the increased attendance of late years. It is estimated that there is very little difference between academic and business courses in the cost per pupil; but manual training, which is of limited usefulness in small country high schools, costs considerably more than either of the other courses. By suitable additions and modifications much industrial work could be done in the present high schools; the smaller ones would need a little state aid, for which legislation might be necessary. Since manufacturing is the greatest industry in Massachusetts, this suggestion was a wise one for adapting the small high school to the needs of the great majority who do not go to college.

In neither state has agricultural education assumed any such importance in rural high schools as it has in parts of the Middle West. In Massachusetts, where only a small per-

centage of the population is engaged in agriculture, about the only high school with a strictly agricultural bent is the Petersham Agricultural High School in the western part of the state. We are not aware of any similar secondary school in New York. Such vocational training would be eminently desirable in both states. New York is second in the country in the value of its fruits, which require intelligent cultivation; while in Massachusetts the poverty of the soil makes intelligence and a certain amount of scientific knowledge essential to the successful farmer. Fully one-half of the Massachusetts high schools are in rural communities or draw largely from them, and agricultural instruction would be welcomed.

The Massachusetts Council of Education has suggested that there should be a core of academic instruction, constituting a standard for public secondary schools. There should also be grouped electives, depending on the teaching force, equipment, and local conditions. There should be a careful study of ways by which subjects may be taught so as to bear on local conditions. Since, even with state aid, it is not feasible for every high school to give practical vocational courses, the problem might be solved in several ways: 1, several high schools might be combined (but this would have certain obvious disadvantages); 2, each of several adjoining high schools might specialize, so that pupils could elect among them; 3, special teachers in the practical subjects might go from school to school.

Textbooks are prescribed in Massachusetts wholly by the school committees, altho this power is often delegated to the superintendent; so that of 233 towns and cities investigated, in about two-thirds he had full power, advisory power in nearly as many places, and joint power in most of those remaining. A state law compels towns to furnish free textbooks. In New York the boards of education of union free school districts prescribe textbooks, and *may* furnish them.

The Massachusetts law requires high schools to be kept for forty weeks each year, but it also provides that no part of the Massachusetts School Fund shall be distributed to towns that do not maintain a high school for thirty-six weeks. This gives the idea that while the state demands forty weeks, it will be

satisfied with thirty-six weeks. The result is that the average high school year is somewhat less than forty weeks. In New York at least 175 days of approved academic instruction must be given by each academic department belonging to the University of the State of New York.

The arrangement of the high school program is entirely in the hands of the local school authorities in Massachusetts; but in New York the state inspectors, among their other duties, observe, advise, and report about the programs of recitation. In both states the majority of the smaller high schools have two sessions.

In the process of high school development within a state, consolidation may take place thus: if the state reimburses tuition, communities may send their children to high schools in other towns instead of establishing small high schools of their own. About ten per cent. of the total number of public secondary students in New York are tuition pupils, while in Massachusetts only two per cent. have one-half or the whole of their tuition paid by the state. This difference is partly explained by the fact that New York has many one-, two-, and three-year high schools, which keep pupils a year or more, and then send them on to higher grade schools. Consolidation may also occur by the formation of a union high school district. When two academic departments in New York combine, the apportionment due both for the current year is paid the united school, but only one quota of $100 is given. Similarly, an academy may become the academic department of a union school either by lease or by adoption. Two adjacent Massachusetts towns of less than five hundred families each may vote to form a union high school district. The law not only permits towns to raise money to transport children from the outlying districts to the town schools, but also to pay the travelling expenses of boys and girls who attend high school in another town. Conveyance of pupils has been developed to a considerable extent in Massachusetts.

Consolidation is not favored in Massachusetts towns that have an option about maintaining a high school; they favor a local school, except where the expense per pupil would be un-

reasonable, or where a strong outside school is easily accessible. Statistics collected by Mr. Macdonald indicate that only about three-fifths as many will go to an outside school as would attend a local high school if there were one. The fact that a local high school attracts more pupils is a strong one for its maintenance, provided that it can give instruction suited to the pupils' needs, and can be kept fairly efficient.

The following tables give an idea of the relative importance of non-urban and urban high schools in the two states:

From the Massachusetts Report, 1906-1907, 317.

Group	Enrollment	No. of teachers	No. of pupils		Estimated annual expense
I (81)	50 or less	165	2,373		$1,000-$1,500
II (63)	50-100	207	4,318		$3,000-$4,000
III (57)	100-250	341	8,563		$6,000-$8,000
IV (25)	250-500	328	8,905		$15,000-$20,000
V (37)	500 or more	857	23,380		$30,000-$40,000
263		1,898	47,543	Expenditures	$2,556,173.22

Abstract of N. Y. Report, 1909, 3.

	In cities	In villages over 5,000	2,000-5,000	Under 2,000
No. of h. s.	73	40	75	485

The growth of Massachusetts secondary education from 1897 to 1906 was intensive rather than extensive. The number of rural high schools remained practically the same, while city high schools increased in number. The chief cause of this was the passing of many towns from the rural to the city class. The absolute increase in the number of high school pupils was seventy-four per cent. in the cities, and sixteen per cent. in the rural communities; the increase relative to the population was twenty-four per cent. in the cities and 100 per cent. in the rural districts. There was an increase in the average number of teachers to the school in rural high schools, from 2.9 in 1897 to 3.7 in 1906, or twenty-seven per cent. The relative number of one-teacher high schools decreased from twenty-nine per cent. to seven per cent. of the whole; the relative number of two-teacher high schools decreased from forty-seven per cent. to thirty per cent. of the remainder. The great relative increase in enrollment in rural high schools, the comparative lack of increase in the number of rural high

schools, and the increased efficiency as measured by the relative number of teachers,—all these are largely due to the free tuition law, which does not encourage the establishment of high schools. Another factor, however, in the decrease of one-teacher high schools was the act of 1902, by which high schools must have at least two teachers to receive the state grant.[1] Several years ago it was found that of the thirty-five Massachusetts towns with the highest percentage of high school enrollment, thirty had less than 2,500 inhabitants each. The reasons assigned for the gain in high school membership between 1895 and 1905 are: the increased average earnings of the community; the increased demand for high school graduates in many lines of business; the broadening of high school courses, especially the introduction of commercial branches and the wider use of electives.

The growth in high school enrollment in New York has been remarkable in recent years. In New York there were 88,675 high school students in 1904, as compared with 34,058 in 1894, or a gain of one hundred and sixty per cent.; meanwhile the population gained only twenty-one per cent. between 1890 and 1900. But since in New York, as well as in Massachusetts, the non-urban population actually declined in the period under consideration, it is probable that the cities absorbed most of the increase in high school membership. Especially is this true in New York, where the New York City high schools obtained their start and growth in this decade; on the other hand, however, the number of high schools doubled, showing that many were started in small places that had previously not been able to support one.

In Massachusetts the number of high school graduates in 1907 was 7,600, or fifteen per cent. of the total number of high school students, 49,937; the high school enrollment was 9.6 per cent. of the total public school enrollment. In New York the number of high school graduates in 1906-1907 was 6,793, or 7.5 per cent. of the whole number of high school students, 89,907; the high school enrollment was 6.2 per cent. of the total

[1] Snyder, E. A., *The increase and support of rural high schools in the United States*, 149-151.

public school enrollment. According to the figures in the United States Commissioner's report for 1907, the non-urban high school enrollment was 21.8 per cent. in Massachusetts and 29.7 per cent. in New York of the total high school enrollment. Using these figures and those given in the state reports of Massachusetts and New York, it is found that the proportion of the non-urban high school enrollment to the total public school enrollment was approximately two per cent. in both states. These statistics indicate that the non-urban high schools, as compared with urban high schools, are relatively more important in New York than in Massachusetts, but that the proportion of their enrollment to the total public school enrollment (the non-urban schools cannot be separated off for that year) is about the same in the two states. A much greater percentage, however, fall by the wayside during the high school course in New York than in Massachusetts; but this statement is misleading, in that graduation probably means from four-year high schools, which form a much higher percentage of the total number of high schools in Massachusetts than in New York; at any rate, the number of graduates from a four-year high school is relatively much larger in Massachusetts.

It seems hardly necessary to say that the high school fills an important place in a small town; but much more use should be made of the high school as a social center, and it should minister more directly to the economic needs of the community. It is charged, finally, that country high schools are educating students to leave home instead of preparing them for life in their home towns.

It has been shown that in recent years both states have had a remarkable growth in their non-urban high schools, so that secondary educational opportunities have become practically universal. It must not be inferred, however, that high school enrollment has reached the maximum; for only a comparatively small proportion of young people of high school age are actually attending secondary schools. For partial explanation we may look to the distances that some children must travel to reach a high school, the limits of social wealth, and the inequal-

ity of its distribution, and the relatively low educational ideals in many places. Furthermore, the high schools are not unimprovable, and in the opinion of many give an inadequate preparation for practical life. New York has had a great increase in the number of rural high schools, as well as in enrollment. In Massachusetts the number of small high schools has remained nearly stationary, while their attendance and number of teachers per school have greatly risen. There are many more high schools with less than four years in the course in New York than in Massachusetts. According, therefore, to Dr. Snyder's analysis of the evolution of secondary education,[2] Massachusetts has reached a higher stage in high school development than has New York; for the emphasis in the former state is on the refinement of secondary education rather than on numerical growth of schools and of the number of years in the course.

Rather more non-urban high school teachers seem to have been well prepared in Massachusetts than in New York. There is in both systems a scarcity of men, most of whom serve as principals. The tenure of office should be made more secure, and the salaries should be high enough to attract the best teachers and to induce more people of ability, especially men, to enter the profession. Pensions would still further help to make teaching more attractive and pleasant, and, as a result, better.

Owing to much greater state prescription, the course of study is more uniform in New York than in Massachusetts. Commercial courses are very common, at least in Massachusetts. Agricultural education has not developed to an appreciable extent, but both states seem to be awakening to the importance of industrial education in secondary schools.

One of the strongest features of the Massachusetts system is its universal supervision by local superintendents of schools. There seems to be no good reason why local supervision, which is strongly urged by the state educational authorities, is not feasible for New York. It has been said that the plan was recently killed, at least for the present, because of a fear in some

[2] P. 145.

quarters that it would give greater power into the hands of the State Education Department. Connecticut has already adopted a similar scheme; and the time may not be far distant when many states with a dense population will have secured expert supervision for all of their schools.

The history of secondary education in New York and Massachusetts has been a long and honorable one, and the experience of these two states has been of great value to the newer states. Great improvements have been made in recent years, and we may expect that able leaders will bring the secondary schools to still higher levels of efficiency and usefulness.

ALDEN H. ABBOTT

YREKA, CALIF.

III

THE ART OF TRANSLATION [1]

Being of a conservative turn of mind, as are most men who reach my years, I have, in choosing my subject for a presidential address, been guided mainly by precedent. My distinguished predecessors in the office have all taken a subject, some with a direct and immediate bearing on the teaching of modern languages, and some in which the connection was remote and not at the first blush apparent; but they have, one and all, like the Attendant Spirit in *Comus,* aspired to move "in regions mild of calm and serene air," to raise us above the "rank vapors of our pinfold," the schoolroom—nay, above "the smoke and stir of this dim spot," the conference hall. This ideal I shall endeavor to follow at a respectful distance, *haud passibus aequis.*

At our last annual meeting at Durham the subject that provoked the liveliest debate was the place of translation in modern language teaching. It was introduced in an admirable paper by Mr. Latham; the discussion has been continued thru the year in the columns of our monthly organ; it has overflowed into the present Conference, and it will be consummated (I will not say concluded) in the resolutions to be moved tomorrow morning. In that debate I have no intention of intervening, nor should I presume to act the part of a judge and sum up the arguments on either side before leaving the case in the hands of the jury. It is of "Translation as an art" that I propose to treat, without any reference to pedagogics, and I flatter myself that neither party in the suit will be able to reap any advantage out of my address.

It is right to forewarn my audience (if I may borrow a hint from *Eöthen*) that this address will be quite unprofessional in

[1] Presidential address to the Modern Language Association, January 7, 1908.—Reprinted from the London *Journal of education.*

its character. I have endeavored to discard from it all valuable matter derived from books on method and cyclopedias of education, all display of "sound learning and religious knowledge," all useful statistics of child-study, local examinations, and university schools, and, most of all, all good moral reflections; and I think that those who have the patience to hear me to the end will acknowledge that my efforts in this direction have been attended with great success.

On the prerogatives of translations (not of translation) in the history of civilization, in the education of humanity, I need hardly dwell. The Battle of the Books still rages. The extreme classicist still prefers to study natural history from Aristotle than from Darwin, and would sooner read Sophocles in Greek than Shakespeare in his native tongue. The extreme left of the modernists hold that translation is the Ahriman of language teaching, or, like Mr. Cobden, think that a single number of the *Times* contains more information than all the works of Thucydides. But these extremes would meet in acknowledging that by the transmitted wisdom of the ancients we are what we are, and that the transmitters of the lamp of life have been mainly the translators. I would go further and say that, supposing all the masterpieces of the world, in their original tongues, were collected into one library and all the translations into another, if the dire necessity were put upon me to set fire to one or the other, I should elect to burn the originals. For, like Omar (some will add, like him, inspired with the ignorance of the fanatic), I should argue, "Whatever is of use in these writings of Judæa, Greece, and Rome has been preserved in translation."

And, lest I should seem overbold, let me shelter myself behind the broad shield of Goethe. Eckermann relates a visit paid to Goethe by a young English officer who had gone to Weimar to learn German (evidently a prototype of Lieutenant Woods). Goethe imprest on his visitor the importance of knowing German as a key to modern European literature. French, as the language of society (he held), was essential, but as to Greek, Latin, Italian, Spanish, we can read the best works in these languages in such excellent German translations that,

except for some special object, there is no reason why we should waste time on the toilsome process of learning tongues. "There is no denying," he added, "that generally a good translation takes us a very long way. Frederick the Great knew no Latin, but he read his Cicero in the French translation, ebenso gut als wir andern in der Ursprache." And perhaps the highest compliment ever paid to a translator was paid by Goethe. When in his old age he could no longer read his own *Faust,* he read it with renewed pleasure in Gérard's translation.

It is only from a translation that we know the very foundation of Christianity—the words of our Lord, the parables, and the Sermon on the Mount. It was in a translation that the arts of Greece were first introduced into rustic Latium, and the worthy old dominie who rendered the *Odyssey* into rude Saturnians—"Virum mihi, Camoena, insece versutum"—deserves a red letter in the Comtist calendar. It was on translation that our "morning star of song," Dan Chaucer, tried his prentice hand, till he found himself and far outstript his French originals. It was from a translation—nay, a translation of a translation—that Shakespeare quarried the materials for his *Coriolanus, Julius Cæsar, Antony and Cleopatra.* Of Keats, with far more truth than of Shakespeare, it may be said that he knew small Latin and less Greek, and in an immortal sonnet he has amply paid his debt to Chapman.

I began by glorifying translations; but, before I proceed further and discuss the canons of the art, I am bound to meet the objections of skeptics who deny the possibility of translation in the higher ranges of literature.

In his *Life of Goethe* G. H. Lewes flings down a bold challenge to all the world of translators, which I, perhaps, am still bolder in picking up. He has been explaining why so many English men of letters have declared themselves disappointed with Goethe's *Faust*—why, for instance, Charles Lamb pronounced it a vulgar melodrama compared with Marlowe's *Doctor Faustus.* He finds a full explanation in the fact that Lamb read *Faust* in a translation, and so had not the real drama before him. From this particular instance he is led to the broad

generalization that all translation of poetry is predestined to failure. "A translation may be good as translation; but it can not be an adequate reproduction of the original. It may be a good poem; it may be a good imitation of another poem; it may even be better than the original: but it can not be an adequate reproduction; it can not be the same thing in another language, producing the same effect on the mind."

And Lewes hits on a most ingenious and telling way of establishing his thesis. Instead of arguing whether the version of Blackie, or Sir Theodore Martin, or Bayard Taylor is adequate or not, he takes a simple stanza of a simple English poem and translates it into English. Mickle's ballad is familiar to all readers of *Kenilworth*. Scott tells us that its music haunted him as a boy. The first stanza runs:

> The dews of summer night did fall;
> The moon, sweet regent of the sky,
> Silvered the walls of Cumnor Hall,
> And many an oak that grew thereby.

Of this Lewes gives alternative versions, one literal and one free:—

> The nightly dews commenced to fall,
> The moon, whose empire is the sky,
> Shone on the sides of Cumnor Hall
> And all the oaks that stood thereby.

And more freely:

> Sweetly did fall the dews of night,
> The moon, of heaven the lovely queen,
> On Cumnor Hall shone silver bright,
> And glanced the oaks' broad brows between.

Here, he exclaims, are translations which in another language would pass for excellent, would win school prizes and university medals. In the first the meaning, the meter, and most of the words are identical, yet the difference in the whole is infinite. It is the difference between a garden rose and a wax rose. One shade the more, one ray the less, has half (nay, wholly) impaired the nameless grace. Assuredly neither translation would have haunted any one. We might, it is true, contend that Lewes is loading the dice, not playing the

game quite fairly, that "sides" for "walls" is a hopelessly prosaic word, and that "commenced," as here used, is an actual vulgarism; but on the whole we are bound to admit that he carries us with him, that the analogues of his versions in French or German, still more in Latin or Greek, where (fortunately for our classical prestidigitators) native criticism is impossible, would have past as excellent. Admitting this, are we bound further to accept his sweeping generalization and pronounce all verse translation either a fraud or a failure—a fraud if it alters even for the better the original, a failure if it attempts an exact copy? That is not the conclusion of the many, who would by Lewes be ruled out of court as unable to judge, nor do I think that he will convince the experts whom I am addressing today. After all, it is a question not of *a priori* reasoning, but of facts, and we can call in evidence at least one great poem (to which I shall recur) that both delights in English those who are ignorant of the original and is pronounced a faithful transcript by those who can compare the two.

It seems to me that Lewes is dressing out as a striking paradox what is at bottom a barren platitude. It is obvious that, directly we pass beyond the commonest objects of sense, the simplest actions and emotions of everyday life (and even before then), no language can exactly reproduce the single words, let alone the connected phrases, the rhythm, and harmony, of another language. Each language has its own *cachet,* its own idiosyncrasies, its idiotism. Words are not counters, nor nuggets of gold or silver or copper. They are more like coins, each with its own image and superscription for which no exact equivalent can be found in a foreign coinage. But even that metaphor is inadequate; for a word not only bears a past history like a coin or medal, but it is a living organism, ever taking to itself new accretions and shedding part of its substance. What is slang today may pass as standard English on the morrow: a nickname may be taken as the title of a great political party; a gross scurrility may become a term of endearment.

Take the commonest words you can think of in English—

"boy," "girl," "friend," "to love"; *garçon, fille, ami, aimer* would seem at first blush the exact equivalents; but the schoolboy soon learns to his cost that they do not always match, and the adult translator knows, or ought to know, that to each word in either language there clings a whole network of associations, some obvious, some remote and only half perceived, to which he must attend at the risk of bathos or absurdity. Thus, to give a crude illustration, the incautious Frenchman may be betrayed into saying, "I love that jolly actress," and the next minute, "I love little peas.' De la Place translated the title of the old play, *Love's last shift, La dernière chemise de l'amour.* The Englishman who is not forwarned may say of a *jeune ingénue* without a suspicion of giving offense, "C'est une fille," or of a matron's friend, if he happens to be a man of presence, "C'est son bel ami."

Or, take the parts of the body. As to dress among civilized nations, there is a general convention which varies little with time or place. But this convention, if I may coin the word, is only clothes-deep. By a Frenchman *ventre, flanc, hanche* may be freely named in writing or conversation without a shade of coarseness or impropriety; but no Frenchman would mention his toes except to a surgeon or chiropodist. A typical instance of similarity with a difference between French and English, is the word "bowels." Thanks to the Authorized Version, we can use the word in its metaphorical sense. We speak of "bowels of compassion," tho our politer age would squirm at Fuller's description of "Bloody Bonner, that corpulent tyrant, full of guts and empty of bowels." Yet we can not use "bowels" as freely and significantly as the French use the equivalent *entrailles;* and when La Bruyère speaks of "Veux qui tirent des entrailles tout ce qu'ils expriment," we have to content ourselves with the far feebler metaphor "from the heart," and a phrase like "donner des entrailles aux mots" drives the translator to despair.

Semantics now forms a recognized branch of philology, and I have lingered too long on a topic that has been so brilliantly treated by Trench and Darmesteter. But, if single words are thus hard to render, when we pass to combinations of words,

to phrases, sentences, and periods, the difficulty increases in geometrical progression. Each word has, as we have seen, its own particular *nuance,* and, further, this shade of meaning is affected by the context. The translator has to consider not the just equivalent for each individual word, but the equivalent that will suit the context, and, when he has so far succeeded, the hardest part of his task still remains. He has so to rearrange or modify the words and phrases that the meter or rhythm or harmony of the whole passage at once satisfies the ear and at the same time is an echo of the original, or at least affects the foreigner in the same way as the original affects a native.

And at this point of my argument it may be noted that the truism or paradox of Lewes, which I took as my starting point, can not, as Lewes would have it, be confined to poetry. If poetry is untranslatable, so is prose—I mean, of course, literary prose. In this connection, *The elements of Euclid* is no more prose than tables of logarithms. Prose I say—the prose of Milton or Hooker, or John Henry Newman or Pater, of Ruskin or Froude—has each a rhythm and modulation of its own, almost, if not quite, as hard to reproduce in another language as the rime or meter of Shakespeare and Milton, of Keats and Swinburne.

Let us, then, freely concede to Lewes that a perfect translation of a poem is a chimera, impossible in the nature of things, and out-paradox Lewes by extending his thesis to prose. Are we, therefore, bound to accept his corollary—to allow that the *Faust* of Goethe must remain a book with seven seals to those who know not German, the *Agamemnon* to all but Greek scholars, the *Divina commedia* without a knowledge of Italian, and, not less, Rabelais and *Don Quixote* to those who can not read Old French and Spanish? The question answers itself. Whatever scholars may opine, the world of readers has returned an emphatic negative, and, as Mme. de Sévigné said: "Le public a bon nez et ne se méprend guère." In Lord Avebury's *Hundred best books,* in the various series of reprints that are issuing from the press, at least one-fourth of the books are translations.

We members of the Modern Language Association, of course, know Danish and Spanish (I don't myself, but I was born in the dark ages); but we all, young and old alike, read with delight Hans Andersen and Cervantes before we had mastered those beautiful languages, and it needs not a knowledge of Arabic to appreciate *The Arabian nights.* And there is one book that all, whether clerks or laymen, read and study mainly in a translation. The Dean of Christ Church who commended the study of Greek to his class on the ground that it enabled them to read the Oracles of God in the original and to look down from the heights of learning on the vulgar herd, belongs to a past generation; but, when at conferences I have listened to our clerical head masters extolling the superlative merits of a classical education on the ground, among others, that thus alone could the Scriptures be revealed to us,—when, on two occasions, I have seen country parsons flocking to Cambridge to vote for compulsory Greek as tho they were defending the ark of the covenant,—I should have liked to put to them the question: "How many of you possess a Hebrew Bible? how many know even the Hebrew alphabet?"

Heaven forbid that before a Modern Language Association I should even seem to be depreciating the study of language, of Hebrew and Greek, any more than of French and German; but the old leaven of the Renaissance, the superstition of the elders, still lurks and works, and the study is imposed on pupils who can not profit by it and supported by arguments that will not bear examination. Masters of classical and of modern sides alike have not sufficiently recognized the use and worth of translation in education, and would do well to lay to heart the wise words of Goethe that I have quoted.

But, in spite of my professions, I find myself falling into the moralizing vein. I apologize, and revert at once to the brief that I have given myself, "The art of translation," and begin with the main point at issue, which even in Horace's day was a bone of contention—the question of literal or free translation.

Translation is an art, but it has very slowly been recognized

as such, and in no art has theory lagged so far behind practise. Even now there is, so far as I am aware, no treatise on the art of translation that can take rank with a score of standard works on the art of poetry, from Aristotle and Horace down to Lessing and Holmes. Even monographs such as Matthew Arnold's famous lectures on translating Homer are rare. The Greeks, who are not only our models but our lawgivers in every other branch of art and literature, are here wholly to seek. They suffer from the defects of their qualities; they were *αὐτοχθονες* and *αὐταρκεις*, self-developed and self-contained. All that is best in modern art and literature is translated (in the broadest sense of the word) from the Greek; the Greeks themselves translated nothing.

I notice that, under the translation competition in the *Journal of education,* the Prize Editor is often asked whether a literal or a free translation is demanded, and he, like a prudent man, declines to give a categorical answer: the version, competitors are told, must give the whole truth of the original, and nothing but the truth, and must at the same time be idiomatic English—that is to say, must not read like a translation. This is a counsel of perfection to which no mortal can attain even in prose, let alone poetry; and I, being neither a prize editor nor a politician, am under no necessity to preserve this non-committal attitude. There is a plain issue between the literalist and the spiritualist schools, and I unhesitatingly take my stand on the text: "The letter killeth, but the spirit giveth life." And, if we would judge the two schools by their fruits, we could not select a more crucial instance for comparison than the Authorized and the Revised Version of the New Testament, especially in their respective renderings of the Pauline Epistles and the Gospel of St. John. In the one we have the letter subordinated to the spirit; in the other the word-for-word rendering, the strictest adherence to the text as interpreted by the flower of Biblical scholars. I will read without comment a few alternative versions and leave those who have ears to hear to decide whether, in each instance, there is not a *corruptio optimi,* a sacrifice of the spirit to the letter.

Authorized Version

Though I speak with the tongues of men and of angels, and have not charity, I am become as sounding brass, or a tinkling cymbal.

Charity never faileth: but whether there be prophecies, they shall fail; whether there be tongues, they shall cease; whether there be knowledge, it shall vanish away.

Revised Version

If I speak with the tongues of men and of angels, but have not love, I am become sounding brass or a clanging cymbal.

Love never faileth: but whether there be prophecies, they shall be done away; whether there be tongues, they shall cease; whether there be knowledge, it shall be done away.

Authorized Version

For the creature was made subject to vanity, not willingly, but by reason of him who hath subjected the same in hope, because the creature itself also shall be delivered from the bondage of corruption into the glorious liberty of the children of God.

Revised Version

For the creation was subjected to vanity, not of its own will, but by reason of him who subjected it, in hope that the creation itself also shall be delivered from the bondage of corruption into the liberty of the glory of the children of God.

Authorized Version

And this is life eternal, that they might know thee the only true God, and Jesus Christ, whom thou hast sent. I have glorified thee on the earth: I have finished the work which thou gavest me to do.

Revised Version

And this is life eternal, that they should know thee the only true God, and him whom thou didst send, even Jesus Christ. I glorified thee on the earth, having accomplished the work which thou hast given me to do.

Authorized Version

And thou, Capernaum, which art exalted unto heaven, shalt be brought down to hell.

Revised Version

And thou, Capernaum, shalt thou be exalted unto heaven? thou shalt go down to hades.

The pity of it is that enlightened people, clerics—and some among them scholars—don't know the difference; and while the Authorized Version (thank God!) still holds its own in the family and in the closet, from the lecturer we hear more commonly than not the Revised Version.

I have often thought what a mistake the revisers made in

not coöpting as assessors to sit with them in the Jerusalem Chamber two or three masters of English—John Henry Newman, Froude, Tennyson. How different would have been the result! To make a perfect translation requires something more than exact scholarship; it needs *Sprachgefühl,* the literary sense, the ear attuned to harmony—inspiration.

I read in the newspapers that the Sacred College has undertaken a revised version of the Vulgate, and it is certainly high time; but His Holiness must beware of "oppositions of science which is falsely so called." Larousse, in the *Grand dictionnaire,* tells us that the Vulgate is cram full of blunders, and he instances two. "Spiritus Dei movit super aquas" should be "un grand vent, ventus fortis"; and instead of "It is easier for a camel . . .," an absurd hyperbole, the Greek has "a rope or cord."

A literal translation is a copy, and nothing but a copy, *a peinture au décalque,* and *ex vi termini* must be inferior to the original. For a Raphael, a Rubens, a Reynolds we pay in thousands or tens of thousands; for a copy, in tens, or at most in hundreds of pounds. And yet a copy may be so good as to deceive all but the elect. But the analogy is not perfect, for the artist copyist works *in pari materia.* A translator is more like a sculptor set to copy the Venus of Milo in clay or plaster, or, it may be, in ivory or gold; but, whether the material be meaner or costlier, it is *different,* and the product must differ, and differ for the worse, in ninety-nine cases out of a hundred —the one happy hit or the freak of genius when the greater man sets himself to copy the less.

A still closer analogy might be found in music than in the plastic arts. Tennyson most aptly addresses Milton as "O mighty-mouthed inventor of harmonies!" Well, when I read *Paradise lost* in Chateaubriand's translation, I seem to be hearing an organ fugue played on the pianoforte; and when I read Heine's *Buch der Lieder* in Bowring's or Leland's version, I think of the *Songs without words* ground out on a barrel-organ or repeated on a gramophone.

There are the misses, more in number than the sands of the sea. Translation is like the proud lady in Aristophanes:

"Many were her lovers, but she gave herself to few." And yet a record of favored lovers would rival in length the latest *Life of George Sand,* and I must be content to select at random a few typical specimens.

My ignorance prevents me from comparing Fitzgerald's *Omar Khayyám* with the original *Rubâiyât;* but I have compared it with more than one literal version, and have little hesitation in pronouncing the English poem superior to the Persian. It is, to recur to my analogy from music, as tho melodies composed for the spinet were rearranged for a grand piano.

Even higher as a pure translation, with nothing added and nothing omitted, I should rank Rossetti's rendering of Villon's immortal *ballade:*

> Tell me now in what hidden way is
> Lady Flora, the lovely Roman?
> Where's Hipparchia, and where is Thais,
> Neither of them the fairer woman?
> Where is Echo beheld of no man—
> Only heard on river and mere—
> She whose beauty was more than human?
> But where are the snows of yester-year?
>
> . . . . .
>
> Nay, never ask this week, fair lord,
> Where they are gone, nor yet this year,
> Except with this for an overword—
> But where are the snows of yester-year?

Note here in passing how a single word gives the key of the position. Had not Rossetti by a flash of inspiration coined or hit on "yester-year"—it has a dying fall—he would not have succeeded. John Payne, "an eminent hand," has also attempted the *Ballad of dead ladies* and egregiously failed. Instead of

> But where are the snows of yester-year?

we have

> But what has become of last year's snow?

and for

> Where's Héloïse, the learned nun?

we have

Where did the learned Héloise vade?

Il faut tirer l'échelle.

Equally perfect in its way, tho not such a *tour de force,* is William Johnson's translation of the famous epigram of Callimachus:

They told me, Heracleitus, they told me you were dead;
They brought me bitter news to hear and bitter tears to shed.
I wept as I remembered how often you and I
Had tired the sun with talking and sent him down the sky.

And now that thou art lying, my dear old Carian guest,
A handful of gray ashes, long, long ago at rest,
Still are thy pleasant voices, thy nightingales awake;
For Death, he taketh all away, but these he cannot take.

It would be cruel to compare with this an alternative version by an eminent classical scholar who thought that Johnson had not done justice to the original, and that by a more literal translation he could reveal to us the true beauty of the Greek.

One more specimen, and that a fragment. Here is Clough's version of an Alcaic stanza of Horace:

Eager for battle here
Stood Vulcan, here maternal Juno,
And, with his bow to his shoulder faithful,
He who with pure dew laveth of Castaly
His flowing locks, who holdeth of Lycia
The oak forest and the wood that bare him,
Delos' and Patara's own Apollo.

This is a type of the happy accident, and the chief merit of Clough consists in seeing that, for once, a Latin exotic could be transplanted, roots and all, and flourish in English soil.

By way of contrast I will cite Du Bellay's *Song of the winnowers,* "an Italian thing transplanted into that green country of Anjou out of the Latin verses of Naugerius into French. The matter is almost nothing; the form is almost everything." The matter, the Latin elegiacs, you will find in Masson's *Lyre française,* of the form, the Old French of Du Bellay, I can give you only a feeble echo:

Ye frolic airs that fleet
With music in your feet
O'er sea and land,
Rustling the leafy shade,
Rippling the woodland glade,
Light-wingèd band!

Lily and rose I bring;
Look on my offering,
  Violets and roses.
Violets all wet with dew,
Pinks and carnations too,
Fresh-gathered posies.

Airs from the summer sea,
Breathe over lawn and lea,
  Fan my retreat.
The while I toil amain,
Winnowing the golden grain,
  Through the day's heat.

I have chosen these four specimens somewhat at random. Few and brief as they necessarily are, I hope they may serve to convince you that Lewes's paradox is one of those half-truths that is always worse than a lie. I choose them without *arrière pensée;* but it happens, as you will have observed, that all four are by poets. Are we not justified in drawing the inference that poetry can be adequately rendered only by a poet—a poet, that is, either *in esse* or *in posse?* Let us hear the canon of translation laid down by Rossetti himself:—"The life-blood of rhythmical translation is this commandment that a good poem shall not be turned into a bad one. The only true motive for putting poetry into fresh language must be to endow a fresh nation as far as possible with one more possession of beauty. Poetry not being an exact science, literality of rendering is altogether secondary to this chief law. I say literality, not fidelity, which is by no means the same thing."

And let those who think themselves poets *in posse* take to heart this confession of Victor Hugo which I am bound to quote, though it flatly contradicts my main contention: "Je déclare qu'une traduction en vers par n'importe qui me semble une chose absurde, impossible et chimérique. Et j'en sais quelque chose, moi, qui ai rimé en français (ce que j'ai caché soigneusement jusqu'à ce jour) quatre ou cinq mille vers d'Horace, de Lucain, et de Virgile."

Every modern translator has tried his hand on Heine's lyrics, but the wise have followed the example of Victor Hugo and kept their translations *in scrinio.*

Time forbids me from giving more than two illustrations of Rossetti's canon of fidelity as opposed to literality, drawn from longer poems. The first I will take from Coleridge's *Wallenstein.* The lines are doubtless familiar to most of you, but I myself never tire of hearing them repeated:

> The intelligent forms of ancient poets,
> The fair humanities of old religions,
> The power, the beauty, and the majesty,
> That had their haunts in dale or piny mountain,
> Or forest by slow stream, or pebbly spring,
> Or chasms of watery depths,—all these have vanished.
> They live no longer in the faith of reason!
> But still the heart doth need a language, still
> Doth the old instinct bring back the old names;
> And to yon starry world they now are gone,
> Spirits or Gods that used to share this earth
> With man as with their friend; and to the lover
> Yonder they move, from yonder visible sky
> Shoot influence down; and even at this day
> 'Tis Jupiter who brings whate'er is great,
> And Venus who brings everything that's fair.

The first six lines, as you are doubtless aware, are an interpolation for which Coleridge found no hint in the German. Yet they are no purple patch sewn on to an old garment. Coleridge has, as it were, put on the singing robes of his master; he is the Miranda who takes Ariel's lute, and, as he plays the same melody in another key, there comes a *Nachklang,* a variation of the original theme, a softer, sadder, sweeter harmony.

For my second illustration I will choose a rendering of Horace by Dryden. He calls it a paraphrase, "a paraphrase in Pindaric verse," and it stands at the opposite pole to the literal translation; but, if I wished to convey to an English reader an idea of Horace's genius, of his *curiosa felicitas* (an untranslatable phrase, by the way), of his sublimated common-sense philosophy, never so well exprest in poetry before or after, I should refer him, not to the Clough fragment, still less to Milton's "What slender youth . . . ?"—that is only half hatched, and bits of the shell still stick to the chick—but to Dryden's paraphrase of Odes iii. 29:

Fortune that with malicious joy
  Doth man her slave oppress,
Proud of her office to destroy,
  Is seldom pleased to bless:
Still various and unconstant still,
But with an inclination to be ill,
Promotes, degrades, delights in strife,
And makes a lottery of life.
I can enjoy her while she's kind,
But, when she dances in the wind
And shakes the wings and will not stay,
I puff the prostitute away.
The little or the much she gave is quietly resigned;
Content with poverty, myself I arm,
And virtue, though in rags, will keep me warm.

  What is't to me,
Who never sail in her unfaithful sea,
  If storms arise and clouds grow black,
  If the mast split and threaten wrack
Then let the greedy merchant fear
  For his ill-gotten gain,
And pray to Gods that will not hear
While the debating winds and billows bear
  His wealth into the main.
For me, secure from Fortune's blows,
Secure of what I cannot lose,
In my small pinnace I can sail
  Contemning all the blustering roar,
And running with a merry gale,
  With friendly stars my safety seek
  Within some little winding creek,
    And see the storm ashore.

The last quotation raises an important question, at which I can only glance. Ought the translator of verse to follow, or, where this is impossible, to attempt to reproduce the meter of the original, as Milton and Clough have done, or is he at liberty to choose his own meter and turn Horace's alcaics into "Pindaric verse" like Dryden? No universal canon can be laid down, each case must be tried on its own merits; but I will make bold to submit a few practical observations.

Any attempt to naturalize a meter that is alien to the genius of the language is predestined to failure. This may seem a platitude and remind some of you of the old epigram about treason; and I allow that in most cases it is only by experi-

ment that we can determine whether or not the language can be adapted to a foreign meter. Yet I think there are cases where we can pronounce *a priori* that a meter is an untransplantable exotic. Thus alliterative verse, though native to the soil, is now extinct, and no one would dream of reviving the meter of

> In a somer seson whan soft was the sonne.

Again, any attempt to write quantitative verse in English is absurd, and even a true poet like Dr. Bridges fails egregiously when he essays it. In saying this I am not prejudging the question of English hexameters. This is far too vexed and intricate a matter for me to embark on when I am almost reaching my tether. All I would remark is that English hexameters, whether good or bad, are accentual, not quantitative. Take the much admired distich of Coleridge (an excellent translation of Schiller):

> In the hexameter rises the fountain's silvery column,
> In the pentameter aye falling in melody back.

Turn this into Latin and observe the metrical effect:

> Surgit in hexametro versus argenteus amnis,
> Usque loquax fluit in pentametro retro fons.

My hexameter may pass because I have failed to find a Latin dactyl that would correspond to "in the hex-," but a fourth-form boy would be swished for showing up such a pentameter.

This leads me to another observation. In judging of the appropriateness of any meter as a medium of translation, fragments are a very inadequate test. Matthew Arnold seems to me to have fallen into this error when he pronounced in favor of English hexameters as the best meter for translating Homer, misled by a brilliant fragment of Dr. Hawtrey:

> Clearly the rest I behold of the dark-eyed sons of Achaia.

So, too, the specimens that F. W. Myers gives us in his essay on Virgil might persuade us that the heroic couplet is the meter for rendering the *Aeneid*. What can be more perfect than—

Tears fall for tears and honour honour brings,
And human hearts are touched by human things.

Thrice in high heaven with dimmed eyes wandering wide,
She sought the light and found the light and sighed.

Yet I can not doubt but that we should thus be led to a wrong conclusion, that the "long roll of the hexameter" can as little be conveyed by the meter of Pope and Dryden as by the ballad meter of Scott, *testis* Conington.

One would have said that this meter is even less fitted for translating a Greek tragedian, but then comes Mr. Murray with his translation of the *Hippolytus* and *Medea* (not, it is true, in the couplets of Pope, but the freer measure of Keats and Morris) and takes the town by storm, demonstrating the danger of all *a priori* judgments.

We may apply the same general law to meter as to language. We must catch the spirit, and a literal transference is "faith unfaithful, falsely true." Who, for instance, would think of rendering Greek iambic verse or the common French meter into English alexandrines? Browning's failure in his *Agamemnon* shows that the attempt is desperate. So, too, Tennyson's experimental alcaics seem to me but a partial success.

And bloom profuse and cedar arches

does not represent the normal

Cum flore, Maecenas, rosarum.

I can not but think that the original meter of the lines to F. D. Maurice and *The daisy* convey far more closely to an English reader the metrical effect of Horace. You must not judge of its capabilities by the following halting experiment—the last four stanzas of the *Regulus* Ode:—

He turned him from his wife's embrace,
His clinging brood, as in disgrace,
(So runs the legend) and austerely
Bent on the ground his manly face.

Nor swerved he from his grim intent,
Till to his will the Senate bent,
And girt about by mourning lovers,
Eager the self-made exile went.

Well knew he what before him lay—
The rack, the wheel—yet no less gay
  He thrust aside beseeching kinsmen
And 'mid the fond crowds forced his way,

Than if, the day's long business o'er,
A lawyer, through the crowded door
  He hied for some Venafran villa
Bound, or Taranto's Greek-built shore.

There are in the English language some half dozen great unrimed lyrics—not more, if so many—and these rare exceptions prove the general rule as laid down by George Meredith: "In lyrics the demand for music is imperative, and, as quantity is denied to the English tongue, rimes there must be." We must accept, too, his rider—that the weakness of English in dissyllabics puts out of bounds for the translator much of Heine, and, we may add, of the greatest German and Italian poetry. The correlative truth was forcibly exprest by Goethe: "Wenn man die schlagenden einsilbigen Worte der Engländer mit vielsilbigen oder zusammengesetzten deutschen ausdrücken will, so ist gleich alle Kraft und Wirkung verloren."

One more general observation. Verse must be rendered by verse, and I wholly dissent from Mr. Andrew Lang's *dictum* that a prose translation of the *Odyssey* must convey the meaning of Homer more faithfully than could any verse translation. If we are studying the Lucretian philosophy, we consult Munro; but who by reading Munro's prose translation would discover that Lucretius is a great poet? If I wanted to give a Greekless modern side a notion of the genius of Sophocles, I should set them not Jebb, but Whitelaw. And, if I may express my own private opinion, I believe that the best medium for translating not only Greek tragedies, but the Greek and Latin epics, will be found, after all, to be blank verse. It is *par excellence, the* English meter, of infinite variety, plasticity, and adaptivity. It can creep, as in

A Mr. Wilkinson, a clergyman.

It can thunder, as in—

Ruining along the illimitable inane.

It can ripple, as in—

So they were wed, and merrily rang the bells.

It can wail, as in—

Thea, Thea, Thea, where is Saturn?

Lastly, translation is not, like science, a series of ascending stepping-stones. Of no translation can we say that it is a κτῆμα ἐς ἀεί. Each age demands its own interpreter. Homer has one message for the eighteenth century and another for the twentieth, and, if even Tennyson had fulfilled his intention and left us a translation of the *Aeneid,* I doubt whether it would have lasted on as the authorized version of Virgil in the two thousands. We may bind our Proteus and think we have wrested from him all his secret. And the inspired Aristaeus of the age may succeed in hiving his swarm, so that "out of the strong there came forth sweetness." But *his* generation passes, the bees have flown; the Old Man of the Sea is "resolved into his primal figure," and Dryden seeks again to bind whom Addison had loosed. A Courier rewrites Amyot, North translates thru Amyot, is supplemented by Langhorne, and is in turn refurbished by Clough. "Italiam sequimur fugientem," islands of the blest.

Whose margin fades for ever and for ever as we move.

and yet it is no *ignis fatuus,* no mocking mirage that allures. To few of us is it granted to hand down the lamp of life; but in this race, as with the beacon-fires which carried the news of Ilium's fall from Ida to Argos, first and last are alike winners; and they who fail to be a light to others are, in the endeavor, themselves enlightened, warmed, and comforted. The humblest and least successful of her train, tho his efforts be but a flicker of the dying lamp, can invoke this solace of old age, the friendship that is constant to the end, when the ideals of youth have one by one departed, the *Beschäftigung* of Schiller:—

And bring thy sister, sweet Employ,
  Who stills, like thee, the troubled breast,
Toils slowly, yet can ne'er destroy,
  And never irking knows no rest;

Who only grain by grain can set,
  To build the dome the Eternal rears,
But from life's overwhelming debt
  Erases minutes, days, and years.

FRANCIS STORR

LONDON, ENGLAND

[In the Eversley edition of Tennyson's works, Vol. II., published since this address was given, Tennyson notes that his *Milton* is an imitation of Greek alcaics, not of the Horatian alcaics, "perhaps the stateliest measure in the world except the Virgilian hexameter at its best." I am pleased to find in the same volume a confirmation of my surmise that *The daisy* is "in a meter which I invented intending to represent in some measure the grandest of meters, the Horatian alcaic." I must, however, demur to Tennyson's dictum that in "God-gifted organ voice of England" the *-an* must be long by position. This, according to my view, is a confounding of quantity and accent. Tennyson corrects Coleridge's "shockingly bad couplet as far as quantity goes" thus:—

Up goes Hexameter, with might as a fountain uprising;
  Lightly the fountain falls, lightly the Pentameter.

We could not wish for a better demonstration of the axiom that English verse must be accentual, not quantitative.]

IV

THE DATE OF THE FIRST SCHOOL IN NEW NETHERLAND

"In the year 1633 the first school was established by the Dutch at New Amsterdam."[1] Statements to this effect have found their way into print many times in the past sixty years; and the fact thus asserted has been accepted as a fact established by practically all writers on the history of education. But some information recently made accessible seems to point to a later date as being the more probable.

The Ecclesiastical Records of the State of New York[2] give, for the first time in accessible English form, certain records of the Reformed Dutch Church in Holland that throw considerable light on the educational history of New Netherland and colonial New York.

In a way, which will be sufficiently shown in the extracts given, the conduct of the public schools in New Netherland was partially under the control of The Classis of Amsterdam, which was that division of the Reformed Dutch Church of the Netherlands exercising ecclesiastical control over New Netherland thruout the Dutch period (and over the Reformed Dutch Churches in New York till 1772).

In the records of this Classis we find the following among the "Regulations relating to the East India and West India affairs, etc., devised by the Deputies of the Classis appointed therefor April 7, 1636:"[3]

VI. Of the Schoolmasters:

In case any Schoolmasters shall be sent to any of these foreign fields, the same course shall be pursued with them . . . as with the Siecke-Troosters . . .[4]

[1] Dexter: *History of education in the U. S.* (1904), p. 12.
[2] 6v Albany, 1901-6.
[3] New York *Ecclesiastical records*, p. 89.
[4] *Ibid.*, p. 91.

VII. Of the Siecke-Troosters
(Comforters of the Sick):

1. The Siecke-Troosters must present themselves, as far as practicable, before the Classis. The Classis must endeavor to have a good supply of these on hand, and shall decide which out of all of them shall first be recommended by the Deputies to the Companies.
2. The examination of the Siecke-Troosters shall be conducted by the Brethren Deputies, who shall bring in a report thereof at the next Classis.[5]

From the "*Instructions and letter of credentials for schoolmasters going to the East or West Indies or elsewhere,*" adopted June 7, 1636, I quote the following extract to show more fully the method of examination and appointment:

Inasmuch as . . . has offered his services, in this capacity, to the Committee on Ecclesiastical Affairs of the said company, and which committee is especially charged therewith by the Classis of Amsterdam: and the said Classis having previously inquired as to this individual, and by examination have ascertained his fitness and experience for such a position; that on the report rendered by the said Classis, and with the approbation and consent of the said Honorable Directors, he has been appointed Schoolmaster and sent in such capacity to N..... N..... with these specific instructions.[6]

In accordance with the foregoing regulations, we find the following:

Acts of the Deputies,
Adam Rolands

1639, July 18.

Adam Rolands, having requested to go to New Netherland as schoolmaster, reader (Voorleser), and presentor (Voorsanger), was accepted, as recommended, upon his good testimonials and the trial of his gifts, on August 4, 1637; and was sent thither."[7]

The date 1639 need not concern us here, but the other date, August 4, 1637, is crucial to our discussion. The Adam Rolands thus examined and licensed on August 4, 1637, bears the same name[8] as the "first schoolmaster" whose teaching

[5] *Ibid.*, p. 89.
[6] *Ibid.*, p. 98.
[7] *Ibid.*, p. 122, where one finds August 4, 1673. Mr. Van Dyke of Sage Library writes me, however, that "The original transcript says 1637."
[8] The name appears variously as Roelants, Roelantsen, Rolands, Roelandson; he himself used the first two of these forms.

career in New Amsterdam is generally supposed to have begun in 1633. But in the document just quoted, he is licensed for that position in 1637. If this certificate were the only evidence bearing upon the date of his entrance into the position in question, no one would hesitate to say that a date earlier than August 4, 1637, should not be assigned. But inasmuch as educational historians, as Mr. Dexter, say[9] that it is "certain that in 1633" Roelantsen was sent from Holland to be master of the school, we must therefore examine closely before we accept the date indicated by this newly found reference.

So far as appears, it was Mr. Dunshee[10] who first gave explicit statement to the since current opinion, and in these words:

> 1633—In the Spring of 1633, Wouter Van Twiller arrived at Manhattan as the second Director General of the New Netherlands. In the enumeration of the company's officials of the same year, Everardus Bogardus is mentioned as officiating as minister at Fort Amsterdam, and ADAM ROELANSTEN as the *first* schoolmaster.[11] (This has as substantiating footnote, Albany records,[12] i, 52).
>
> In an extended list of the officers and servants of the Dutch West India Company, in 1638, Rev. Everardus Bogardus is again mentioned as minister at Fort Amsterdam where Adam Roelantsen was still the schoolmaster.[13] (This has as substantiating footnote, Albany records, ii, 13-15). ii, 13-15).

We would naturally understand these quotations to mean (1) that in some original document, presumably Albany Records, i, 52, is to be found an enumeration, perhaps formally drawn, of the company's officials for the year 1633, with "Adam Roelantsen, Schoolmaster," thereon; and (2)

[9] *Op. cit.*, p. 15.

[10] *History of the school of the Reformed Dutch Church in the City of New York*, 1853 (2d ed., 1883).

[11] *Ibid.*, p. 28-9.

[12] Van der Kamp's MSS. translation of New York Col. MSS. (Dutch) in the State Library.

[13] Dunshee, pp. 29-30. The edition of 1883 gives the same words for these two quotations except that in the first one in place of "In the spring of 1633," we have "In April (prior to the 12th), 1633"; and a reference footnote for "12th" is given to O'Callaghan's *History of New Netherland*, i, 141-3.

a similar list for 1638 in Albany Records, ii, 13-15, likewise containing "Adam Roelantsen, Schoolmaster."

Now the fact is that in no extant document is there to be found any such list, or anything like it, either for 1633 or for 1638. Such lists have been compiled; the first ones by O'Callaghan[14] from widely separated sources. As an illustration of one such source, and also that the reader may see for himself the contents of Albany Records, i, 52, I quote that reference, omitting only the epithets applied to Grietje and her unprintable response thereto:

> This day, date underwritten, before me, Cornelis van Tienhoven, Secretary of New Netherland, appeared Adam Roelantsen, schoolmaster, aged about 32 years, at the request of Domine Bogarde, and hath by true Christian words, in place and with promise of a solemn oath if needs be, declared, testified and attested it to be true and truthful that in the year 1633, Grietje Reyniers, being with the deponent at the Strand, near the late warehouse for cargoes, he heard the sailors of the ship The Soutberg, then lying in the roadstead, cry out to Grietje aforesaid, ...! .....! whereupon she ....., saying ..... All which deponent declares to be true, and that this is done by him without simulation and without any regard of persons.
>
> Done on the Island of Manhate this 13th 8ber 1638.
>
> Adam Roelants.[15]

It is clear from this paper that Adam Roelants was "schoolmaster" on the "Island of Manhate," October 13, 1638, and also that he was in Manhattan in 1633.[16] The further bearing of this declaration we postpone for the moment, while we consider more fully the lists to which Mr. Dunshee refers. It will be observed that Albany Records, i, 52, which Mr. Dunshee gives as his reference to substantiate his 1633 statements, bears no resemblance to a list of officials. The other references, Albany Records, ii, 13-15, are equally far from resembling a list and go no further toward establishing Adam Roelantsen's connection with the school than to show by the records of a certain case in court that he was in Fort Amsterdam, June 10, 1638.

[14] *Op. cit.*, pp. 143, 181.

[15] The translation here given is O'Callaghan's (i, 55), which is better than Van der Kamp's.

[16] It seems that the "Strand" is here in Manhattan, and not in Holland.

Before we ask how Mr. Dunshee came to make such statements, it may be well to say a word about Mr. O'Callaghan and Mr. Brodhead. These men were incomparably the best students, in Mr. Dunshee's day, of the period in question. Shortly before Mr. Dunshee wrote, each published a history covering this period;[17] each issued a second edition shortly after Mr. Dunshee wrote; while both are quoted in Mr. Dunshee's work. Neither of these historians, in either edition, refers to such an original list as one would infer from Mr. Dunshee to be still extant. On the contrary, Mr. O'Callaghan took the pains to compile such lists. The one for Kieft's administration (1638-1647) includes twenty-eight names with twenty-one distinct references in substantiation.[18] It may further be said that the only references that these historians give as to Adam Roelantsen at the time in question are to the declaration regarding Grietje Reyniers and to the case in court above referred to.

Considering that Mr. Dunshee was not primarily an historian, what is more natural than that he should avail himself of these two excellent works which had but recently been issued when he wrote? This, we find, is just what he did. In a footnote Mr. Dunshee says[19] that the contents of Chapter I were "culled from . . . Brodhead's *New York,* and here as elsewhere thruout the work his language has at times been appropriated;" while in Chapter II (in which our question is discust) occur nineteen footnote references to O'Callaghan.

In order to exhibit the probable indebtedness of Mr. Dunshee to these two historians in the construction of his paragraphs quoted above, and so to show that O'Callaghan is Mr. Dunshee's actual authority for his assertion about the lists of the Company's officials, I show herewith, in one column, Mr. Dunshee's statements and, in a parallel column, what I

[17] O'Callaghan: *Op. cit.,* 1st edition 1846, 2d edition 1855; Brodhead: *History of the State of New York,* 1st edition (v. i) 1853, 2d edition (do.) 1859.

[18] *Op. cit.,* 181.

[19] *Op. cit.,* p. 17.

believe to be their probable source in Brodhead and O'Callaghan.

1633.—In the spring of 1633, Wouter van Twiller arrived at Manhattan, as the second Director-General of New Netherlands. In the enumeration of the Company's officials of the same year, Everardus Bogardus is mentioned as officiating at Fort Amsterdam, and *Adam Roelandsen* as the *first* schoolmaster. (Dunshee, *op. cit.*, 28-9).	"1633 . . . Director-General of New Netherland was Wouter van Twiller . . . van Twiller arrived at Manhattan early in the spring." [Brodhead, *op. cit.* 222-3].
	[In O'Callaghan (i, 142) we find for 1633 a compiled list of sixteen] "officers in the service of the company" [concluding with] "at Fort Amsterdam, at which place the Rev. Everardus Bogardus officiated as minister of the gospel," . . . "Adam Roelandsen, 'schoolmaster,' arrived . . . about the same time" [*Ibid.*, p. 143] . . . "first schoolmaster in New Amsterdam . . ." [*Ibid.*, (chapter heading), p. 141].
In an extended list of the officers and servants of the Dutch West India Company, in 1638, Rev. Everardus Bogardus is again mentioned as minister at Fort Amsterdam, *where* Adam Roelantsen was still the schoolmaster. (*Op. cit.*, 29-30).	"Among the other officers and servants of the company [in 1638], we find mention made of . . . [here follow twenty-six names, after which this sentence]: The Rev. Everardus Bogardus continued to officiate as clergyman at Fort Amsterdam where Adam Roelantsen was schoolmaster." [*Ibid.*, p. 181].

The reader will note how helpful for Mr. Dunshee's purpose are the words "still the," introduced by him into the last sentence taken from O'Callaghan.

Each one will judge for himself how successful I have been in tracing the genesis of Mr. Dunshee's words. But whatever may be the verdict on that point, the fact remains that there are no such original official lists known, and that every particular of known evidence, connecting or tending to connect Adam Roelantsen with the school in Manhattan (except certain documents that establish the fact of his pres-

ence in Manhattan from June, 1638), is included in the declaration quoted and in the record of his certification at Amsterdam given above.[20]

Before the certification record was known, it was an easy, if not very compelling inference, that Roelantsen, who was schoolmaster in 1638, had held that position from the time of his coming, which was generally agreed to have been in 1633. Valentine,[21] who wrote much on Dutch affairs, frankly restricts our knowledge of the beginning of Roelantsen's career to what can be gained, directly and by inference, from the oft referred to declaration. And Pratt [22] can give no further evidence. But the writers on educational history have preferred to follow Dunshee, possibly feeling that there was no escape from such explicit references to original official lists.

With this preliminary discussion over let us now take up our evidence, the certificate record of August 4, 1637, and the declaration of October 13, 1638, and see what is contained explicitly or implicitly in them:

1. Adam Roelantsen had come to Manhattan as early as 1633, for what purpose and with what business we do not know.

2. At some time after the 1633 episode and before August 4, 1637, he returned to Holland. [Trips to Holland were common enough; Roelantsen seems to have taken two such journeys in after years (1646 and 1650).]

3. On August 4, 1637, Rolands was examined by the committee of the Classis and duly authorized to teach for the West India Company in New Netherland.

4. At some time after August 4, 1637, and before June 10, 1638 (using the law court records above referred to), he

[20] Mr. A. J. F. van Laer, the present archivist of the New York State Library, answering my letter, agrees with me that "There are no original lists of officers and servants of the West India Company for 1633 and 1638 in existence," and expressly justifies me in using the sentence above to which this footnote is given.

[21] *Corporation manual*, 1863, p. 559.

[22] *Annals of public education in New York* (1872), p. 4.

left Holland, arrived in Manhattan, and began his teaching career.

Postponing the consideration of some other points frequently mentioned in this connection, let us now endeavor to fix more exactly the date of Roelantsen's arrival at Fort Amsterdam.

Besides the court record of June 10, 1638, and the declaration of October 13, 1638, we have another record giving an agreement to which Adam Roelantsen was a party and bearing the date of January 27, 1638. The year 1638 of this date must be rejected in favor of 1639 for the following reasons. The record of this agreement is in an original and bound volume containing the register of the Provincial Secretary from the beginning of Kieft's administration (March, 1638), where it appears between instruments of December, 1638, and February, 1639. Moreover, the nature of the subject matter of this agreement under discussion is such as must follow the lawsuit of June 10, 1638; which date is in its turn similarly determined by conditions like to those urged above. With this instrument put into its proper place of January 27, 1639, we are ready to consider a certain probable line of evidence as to the more exact date of Roelantsen's second appearance in New Netherland.

When we recall that the number of vessels sailing between Holland and Fort Amsterdam during these years was small, and that the records, beginning with Kieft's administration, are fairly continuous, we are authorized to ask when Roelantsen could probably have reached Fort Amsterdam after his certification on August 4, 1637. Mr. van Laer, in the letter already referred to, says that Roelantsen "sailed probably either in den Harink (Herring) with Kieft, or else in den Dolphijn (Dolphin); both these vessels sailed from the Texel in September, 1637, and arrived at New Amsterdam in the Spring of 1638." Mr. van Laer elsewhere [23] gives the date on which the Harink arrived as March 28, 1638,[24] and in the letter quoted says, "presumably the vessels kept together all

[23] *Rensselaer-Bowier MSS.* (1908), p. 816.
[24] See also O'Callaghan, *op. cit.*, p. 180.

the way over." We thus seem authorized to fix the most probable date when Adam Roelantsen opened his school in New Amsterdam at a time slightly after March 28, 1638.

In order that the reader already acquainted with what has been written on this subject may not feel that an important, tho indirect, line of argument has been overlookt we must consider some specific statements that have been made concerning charters, laws, and such like evidence. It seems probable that much of the general misconception of the facts bearing on the question under discussion has been caused by these statements. Dates have been misquoted or disregarded, and pertinent facts have been ignored; so much so that it seems necessary to present some specific quotations, and point out their inaccuracies.

In the *Origin and development of the common school system of New York*, by Superintendent A. S. Draper, on page 21, we find: [25]

> In 1621 the States-General of Holland enjoined the colony "to find speedy means to maintain a clergyman and a schoolmaster," and it was required that "each householder and inhabitant should bear such tax and public charge as should be considered proper for their maintenance." Four years later the expenses of the schoolmaster are shown to have been 360 florins, just one-fourth those of the minister.

The words here referred to the date 1621 occur in *A new project of freedom and exemptions,* drafted, not in 1621 as stated, but some time between 1630 and 1635,[26] and were addrest, not to "the colony," but to prospective patroons. They do not even concern the colony (i.e., Fort Amsterdam), for by the fifth of these articles the Island of Manhattan was expressly exempted. It may be added that there is no record that this new project was ever adopted, and the presumption seems to be that it was not.

The reference to the "tax and public charge" which each

[25] I infer from the tenor of a reply, received from Mr. Draper since this paper was prepared, that he would no longer defend the views of this and the succeeding quotation, but accepts substantially the comments here made.

[26] *Colonial documents of New York*, i, p. 96.

"householder and inhabitant should bear" is found, not under the date of 1621, nor yet is it contemporaneous with the injunction just preceding this excerpt, as the context would seem to imply, but is found in a document dated 1638.[27] It was not "required" as here stated, but upon being proposed was rejected by the States-General.[28]

I am not sure what date the "four years later" would give;[29] but surely few readers, if any, would conclude from the context that 1644 was intended by Mr. Draper. Nevertheless December 15, 1644, is the date of the document in which this salary reference is found.[30]

Mr. Draper elsewhere says:[31]

> In 1629 the West India Company decreed that all colonists "shall endeavor to find out ways and means whereby they may supply a minister and schoolmaster." This injunction was repeated in succeeding years.
>
> Many times the colonists petitioned to the directors of the West India Company to send over ministers and professional schoolmasters. In 1633 the first professional schoolmaster came over in answer to these requests.

This document of 1629 is again one of "Freedom and Exemptions granted by the West India Company to patroons in New Netherland, for the purpose of planting colonies."[32] The words are not a "decree" in any proper sense of that term.[33] It did not concern "all colonists," as would be supposed and in particular did not concern New Amsterdam; for the Island of Manhattan being reserved to the Company (Article III.[34]) is thereby expressly exempt from the provisions of the document.

The statement that the first "schoolmaster came over in answer to" requests and petitions may be true; but there

[27] *Ibid.*, p. 110 *sq.*

[28] *Ibid.*, p. 115.

[29] Mr. Fitch, as we shall see, seems to have reckoned 1625 as the date intended.

[30] *Colonial documents of New York*, i, 119.

[31] "Public school pioneering," EDUCATIONAL REVIEW, 3:326.

[32] *Colonial documents of New York*, i, 553-7.

[33] Altho so careful an historian as Mr. E. E. Brown so denominates it in the *Making of our middle schools*. p. 51.

[34] *Colonial documents of New York*, ii, 553.

is no record to that effect. The first known request from New Amsterdam for a schoolmaster was made fifteen years later in 1648, after Jan Stevenson, the second schoolmaster, had finished his work and returned to Holland.[35]

Mr. Chas. E. Fitch, who writes a "history of the Common School in New York," "under the direction of the Superintendent of Public Instruction," says, on page 7:

> . . . it is a fair inference . . . that the keeping of school began in the year mentioned (1626), an inference which is strengthened by the fact that the colonial estimate for 1625 included the salary of a schoolmaster at 360 florins.

As there is only one such salary reference known in the records, we have no difficulty in setting aside 1625 named here in favor of December 15, 1644, above referred to. Where Mr. Fitch got this early date of 1625 was very puzzling, until Mr. Draper's "four years later" of the first excerpt given above were added to the 1621 of the same excerpt. Whether Mr Fitch got his date of 1625 by this simple addition, I can not say.

Mr. Dexter brings the 1629 "Charter of exemptions" even more directly to bear on the school at Fort Amsterdam by saying:[36]

> . . . in 1633 the colony found itself in a position to comply with that part of the Company's injunction having to do with the school, and Adam Roelantsen was sent from Holland to be its master.

The 1633 date we have already discust at length (it is interesting to note that Mr. Dexter quotes Dunshee, p. 28, in substantiation of his statement.) We have also shown that the "colony," i.e., Fort Amsterdam, was expressly exempt from the 1629 "Charter of exemptions." We might add that not till fifteen or twenty years later is there evidence that "the colony," as distinct from the Company, "found itself in a position" to do anything towards supporting a schoolmaster.

[35] *Ecclesiastical records of New York*, i, 236.
[36] *Op. cit.*, p. 13.

Mr. Dunshee, in his discussion of this general question, states:[37]

> The West India Company, with whom the work of colonization began, bound itself to maintain "good and fit preachers, schoolmasters, and comforters of the sick."

And several pages further on, after Adam Roelantsen has been brought to New Amsterdam, Mr. Dunshee says:

> Here then, in accordance with the custom of the age, the usage of the home government, and by charter stipulations, we have the introduction of the first schoolmaster in Manhattan.[38]

It is a little difficult to say just what date Mr. Dunshee would have us infer as to when the Company bound itself to maintain schoolmasters, but apparently a date near to the time when "the work of colonization" commenced. As a matter of fact, the words quoted have their only known justification in the "Freedoms and exemptions" of 1640,[39] and have no bearing on the New Amsterdam school, because Manhattan was again expressly exempted. Just what Mr. Dunshee can mean by saying, "by charter stipulations" the first schoolmaster was introduced, is not clear. In his preceding paragraph, in a different connection, he seems to regard the 1629 document as a "legal enactment" imposed upon Manhattan. Whether he refers to the 1629 document or to the similar 1640 document or to the original charter of the Company, in using the words, "charter stipulations," I can not say. But as the first two have been shown to have no bearing on Manhattan, and as the last has no reference in it to schools, we seem compelled to reject Mr. Dunshee's statement as unauthorized.

If the writers quoted had been content to use these documents as evidence not of what New Amsterdam did or ought to have done, but as showing a general interest on the part of the Dutch in education, we could have no quarrel with them. But it surely would be difficult to find a point that has been more beclouded by misapplied and misinterpreted

[37] *Op. cit.*, p. 24-5.
[38] *Op. cit.*, p. 29.
[39] *Colonial documents of New York*, i, p. 119 *sq.*

historical data than this date of the first Dutch school in America.

In conclusion, then, of the whole matter we seem compelled to say that, with the publication of the certification record of Adam Roelantsen, the presumption of evidence has been shifted. The burden of proof is now on those who would assert the anciently accepted date for the first school in New Amsterdam. In the light of all the present information we must fix the date for that school at some time after August 4, 1637, and, most probably, at about April 1, 1638.

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V

THE REPORT OF THE ENGLISH CONSULTATIVE COMMITTEE ON ATTENDANCE, COMPULSORY OR OTHERWISE, AT CONTINUATION SCHOOLS

President Murray Butler, writing in the EDUCATIONAL REVIEW of October, 1899, stated: "We have only to look at England to see how, with her high ideals, great opportunities, and large expenditures for education, the people find themselves hampered at every turn in striving to effect reforms, by social and economic conditions." Yet, in spite of recent German war scares, of serious depressions in trade, and of proven widespread poverty and physical deterioration among the masses of the population, there was probably greater justification for a note of pessimism then than there is at the present time. For England in 1899 was a self-satisfied and self-centered nation—the rude awakening of the Boer War had not taken place.

During the past decade enormous strides have been made to effect real social and economic reforms. Along lines of education the progress has been so great that few educationalists in America are aware of its vast extent and still greater significance. The confessions of Dr. Salisbury, president of the State Normal School, Whitewater, Wis., a recent visitor to England, give some insight into the rapidity of the transitions in English education. "He had, before starting, carefully posted himself in the English educational system; 'but my first day of visitation in Liverpool revealed the fact that all my newly acquired information was obsolete and had only an historical value.' All his preconceived ideas of the conservatism of England were upset. The commonest observation made to him by his *ciceroni* was 'we are all in the melting pot.'" [1] The reforms began with the establishment of the board of education, now the central authority for all types of education, in

[1] *Journal of education*, London, June, 1909.

the year 1899. This paved the way for the Act of 1902, which gave to England a greatly expanded national system of education. The statistics of growth of secondary and higher education show, since 1902, a rate of progress greater than that of any other country. Six new universities (Manchester, Liverpool, Leeds, Sheffield, Birmingham, and Bristol) have been chartered, the University of London has been completely reorganized, and all are in a flourishing condition. Secondary education has made such strides that the government can demand that a certain proportion of the staffs of secondary schools shall be professionally trained, and for this purpose has established a system of training colleges for secondary school teachers. The progress in elementary education, owing to the unfortunate religious difficulties, tho considerable, is not so great as in the other branches, yet it must not be forgotten that the training colleges for elementary school-teachers have been made practically undenominational, and that the liberalizing of the elementary school curriculum in the light of the best practical modern pedagogy is now an accomplished fact. Further, the establishing of a system of compulsory medical inspection of children in all elementary schools is not the least of the steps made by England in her progress of the past decade.

But perhaps the most important of all the reforms was the insertion of a clause in the Board of Education Act of 1899, providing for the establishment of a consultative committee of eighteen members (now twenty-one), whose duties, like those of its prototype—the *Comité Consultatif* in France—were to report and advise upon any matters submitted to it by the board. Among its members are the Right Hon. A. H. Dyke Acland (chairman), Dr. R. T. Glazebrook, Mr. J. L. Paton, Principal Sir Harry Reichel, and Professor M. E. Sadler. This committee is the chief of the dynamic forces behind the reform movement, providing, as it does, the scientific direction necessary to bring reform to practical fruition. The two reports of the committee on "Higher elementary schools" and on "Children under five years of age in public elementary schools," were very important, but neither is

destined to affect the fortunes of England so much as the recent report on "Attendance, compulsory or otherwise, at continuation schools." [2]

This recent report is the outcome of an investigation made by the consultative committee during the past two years. It originated with a request from the Board of Education, which ran as follows:

> To consider Clause 8 of the Education Bill for Scotland recently introduced, and to advise as to its applicability to England and Wales; and, whether apart from or in addition to such legislative change, to consider and advise the Board of Education as to whether any means, and if so what, can be devised, in respect of rural areas and of urban areas respectively, for securing (1) that a much larger proportion of boys and girls should on leaving the Public Elementary School commence and continue attendance at Evening Schools than at present do so; and (2) that employers and other persons or bodies in a position to give effective help shall co-operate in arranging facilities for such attendance on the part of their employés, and in planning suitable courses and subjects for the schools and classes.

Clause 8 of the bill mentioned above empowered school boards "to make, vary, and revoke by-laws for requiring the attendance at continuation classes until the age of seventeen of young persons who are not otherwise receiving a suitable education." The bill did not become law, so the clause, with some slight modifications, was embodied in the later Education Act for Scotland, 1908.

The committee went about the task in an expeditious and thoroly systematic manner. They examined as witnesses representative employers; representatives of labor, of public services, and of local education authorities; teachers, inspectors, economists, sociologists, and others specially competent to give information or to express opinions. In addition, the committee visited the chief industrial districts of England to get into close touch with local employers, workpeople, teachers, members and officials of Local education authorities and others. Three questionnaires were also issued, dealing with (1) the problem of continuation schools in rural districts, (2) the suitable organization of continuation schools for girls, and (3) the effect of education upon employment.

[2] Board of Education, May, 1902, 2 vols. (Cd. 4757).

The report, some 200 pages in length, bears testimony by internal evidence to the presence of Professor Sadler on the committee, for his work on continuation schools published in November, 1907, covered much of the same ground. The following is a very brief summary of the topics treated in the report: The opening pages are devoted to a carefully prepared statement as to the urgency and complexity of the problem. The extent of the problem is next presented in statistical form. Following this is a chapter dealing with the need for educational care during adolescence, wherein the lack of suitable physical training and the changing educational needs called for by changes in industrial methods and in social outlook are strongly emphasized. Because the members of the committee firmly believe that efforts for reform of continuation schools must be paralleled by efforts for reform of the elementary day schools, a chapter is devoted to the discussion of needed reforms in the day school. The moral and economic necessity of preventing educational neglect, the acquiring of loafing habits, and the entrance upon "blind-alley" occupations during adolescence is next considered. After an excellent chapter on the history of continuation schools, three chapters follow dealing with the voluntary system of attendance at such schools. The voluntary system is shown to be inadequate, and to prepare the way for the rather drastic proposals which follow, a chapter on the compulsory systems of Switzerland and Germany is inserted. The later chapters of the report deal fairly and honestly with the difficulties, educational, economic, and administrative, in the way of introducing compulsory attendance at continuation schools, and the methods of meeting them; with the special problem of rural districts; with the special needs of girls in urban districts; with an estimate of the expense which would be incurred if the committee's proposals were adopted; and with summaries of conclusions and recommendations.

What, then, is the peculiar nature of the problem in England, and how do the committee propose to solve it? The problem may be stated as follows:—England has 170,000 children between twelve and fourteen years of age, who have left school and do not attend any continuation classes. She has also

2,000,000 boys and girls between the ages of fourteen and seventeen, of whom only 500,000 are receiving continued education. To these must be added the large numbers of pupils who, while still attending school, are nevertheless engaged in wage-earning occupations to the detriment both of their health and education. The special case of the half-timer, i.e., the boy or girl who attends school but half the day, and works in the factory or on the farm the other half, is receiving attention at the hands of an Inter-Departmental committee, who will probably advocate his total abolition. The majority of all these adolescent and child workers have had a sadly inadequate elementary education, and are now engaged for the most part in occupations which will fail them just at the time they begin to demand an adult's wage and sustenance. They, therefore, will become the easy prey of the demon unemployment, with all its attendant moral, social, and economic evils. The solution proposed by the committee is embodied in a series of recommendations, of which the following is a summary of the more important ones:

(1) No child under sixteen years of age to be permitted to leave school unless beneficially occupied.

(2) The minimum age for school exemption to be raised from twelve to thirteen, and after a short interval to fourteen. In country districts, however, the last year of schooling may be taken half-time from thirteen to fifteen, instead of whole-time from thirteen to fourteen.

(3) Local education authorities to make suitable provision of continuation classes for the further education of all young persons, from the time they leave the day school up to their seventeenth birthday.

(4) Local education authorities to be empowered to frame by-laws making attendance at continuation schools compulsory for young persons resident in the district up to an age to be fixt by the by-laws, but not exceeding seventeen years.

(5) Employers to be obliged (a) to grant facilities for attendance at continuation schools to young employees; (b) to supply the names of all eligible young persons to the local education authority on demand; and (c) to discharge any young

person who fails periodically to produce a card attesting his or her attendance at continuation classes in conformity with the terms of the local by-laws.

(6) Street-traders to be granted lincenses which are only valid so long as accompanied by a card showing that satisfactory attendances at continuation classes have been made.

It will thus be seen that the government of England is recommended to follow the time-honored custom, which has worked so well in the past, of passing permissive laws in order to secure subsequently legislation of a compulsory character. The details of the scheme, such as the inclusion of the elusive but ubiquitous street-trader, the protection of the young worker from over-strain, and the making of the employer responsible for the regular attendance of the young employee, are admirably worked out. As to the cost, the committee are only able to give estimates of the maximum costs, for it is impossible to ascertain how many local education authorities will adopt the compulsory attendance by-laws. The additional cost of raising the age of total exemption from twelve to thirteen years would be $263,950; and from thirteen to fourteen years, $2,181,975. The cost of making attendance of adolescents at continuation schools compulsory to seventeen years of age would be a maximum of $13,125,000, but as the increase would take place very gradually, no hardship on this score would be felt.

England is beginning once more the old fight of the rights of the individual versus the rights of the state. Forty years ago she demanded, and in ten years she obtained, compulsory attendance of every child in the country. Pressing social and economic demands now necessitate the lengthening of the period of state control over education until mid-adolescence is reached. The new restrictions will undoubtedly be resisted at first, but the people will eventually acquiesce and learn that the real safety of England lies not in fleets of *Dreadnoughts,* but in a strong, enlightened, and intelligent population.

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VI

THE CARNEGIE FOUNDATION AS AN EDUCATIONAL FACTOR[1]

When Mr. Carnegie made public his letter of April 16, 1905, stating that he had given $10,000,000 five per cent. first mortgage bonds of the United States Steel Corporation to constitute a fund "the revenue of which is to provide retiring pensions for the teachers of universities, colleges, and technical schools in our country, Canada, and Newfoundland," there was a chorus of praise and appreciation. A princely benefaction had been made for a highly meritorious purpose. Perhaps at that time not so many as a half dozen men realized, what is now growing steadily clearer to the universities and colleges and to the intelligent public, that the corporation organized to receive and to administer Mr. Carnegie's gift was certain to become an important factor in American higher education, with quite unprecedented power for good.

The Carnegie Foundation for the Advancement of Teaching—for so the new corporation was named—might have dealt with its task in a manner wholly perfunctory, and it might have contented itself with the ordinary routine administration of a pension fund. Had it done so, the life of many a college professor would have been made easier, but American higher education would have gone on its disorganized, wasteful, repetitious, inefficient way, and the country would have been none the wiser. The trustees, however, conceived their task and their opportunity to be something quite different. They interpreted their trust not as a charity, but as an educational institution; an institution to define, to mediate, to conciliate, to upbuild, to bring order out of chaos in the higher education of the land, and to advance teaching by making more comfortable

[1] Reprinted by permission from the New York *Times*, September 18, 1909.

and more honorable the lot of the teacher. Paraphrasing John Marshall's phrase, "The power to tax involves the power to destroy," they saw that the power to give is the power to construct, and they set about their task in that spirit.

Instead of having an actuary or a financier as their executive officer, they chose for that post a trained and experienced student and administrator of education of the first rank. The taking of Dr. Pritchett from the presidency of the Massachusetts Institute of Technology to become president of the Carnegie Foundation stamped the new undertaking at once as educational, constructive, and scientific. So successfully has Dr. Pritchett applied his highly trained powers to the problems before the Foundation, that in four short years its influence has made itself felt in every part of the United States and Canada.

It is not an unfair question, how was it possible for a fund given to provide pensions for college professors, to set in motion constructive educational policies national in scope and influence? The answer is that Mr. Carnegie intrusted the administration of the fund to men who were themselves necessarily students, as well as administrators, of education, and that their habit of mind led them to look beneath the surface and to face at once the problems on whose wise solution the proper administration of their trust must depend.

Professors in colleges, universities, and technical schools were to be pensioned. What is a college, a university, a technical school? There are nearly 1,000 institutions in the United States and Canada calling themselves colleges and universities; some of them old in years and international in fame, others eking out a precarious, unnecessary, and inconspicuous existence behind the local woodpile. Was every "professor" in all these thousand institutions to be entitled to a pension? If not, how was any line to be drawn between them? At what age should professors be allowed or compelled to retire? What minimum amount of service ought to be exacted before a pension could be earned? Institutions under the control of a sect were excluded by the terms of Mr. Carnegie's gift. What constituted sectarian control, and on which side of the

line were the scores of doubtful cases to be put, and why? To answer these questions was to stir our higher education to its depths and to begin the task of organizing it on broad, well-defined, and easily understood lines.

So far as could be ascertained the American college had been given precise legal definition but once, and that was in the ordinances framed by the Regents under authority conferred in the University Law of the State of New York, when it was defined—as chance would have it, in language drafted years before by one who was now a trustee of the Carnegie Foundation—to be an institution with resources of not less than $500,000, and at least six (6) professors giving their entire time to college and university work, a course of four full years of college grade in liberal arts and sciences, and requiring for admission not less than the usual four years of academic or high school preparation, or its equivalent, in addition to the pre-academic or grammar school studies. This definition is in a sense arbitrary, as well as perhaps too quantitative and mechanical, but it had existed and been interpreted for some years in the State of New York, it conformed closely to generally recognized standards, and nothing better was proposed. So it was accepted, in substance, by the Carnegie Foundation as its guide, the words "a productive endowment of at least $200,000" being substituted for "resources of not less than $500,000"; and straightway several hundred of the thousand so-called colleges and universities in the United States and Canada disappeared from the Foundation's view.

By and by the public will see why the Foundation recognizes some so-called colleges and not others, and then the much needed process of elimination, consolidation, and change of name to academy or high school will begin and go forward swiftly and naturally. Moreover, the most desirable teachers will all gravitate toward the colleges that are recognized as such by the Foundation, for service there gives a pensionable status, together with widows' and disability allowances. So that, without diminishing the power or impairing the right of those so minded to set up nominal colleges and universities whenever and as they please, the Foundation, representing the

best educational opinion of the country, will refuse to recognize them unless they are reasonably endowed and equipped for the work they profess to do. In this way the Foundation will gradually disentangle colleges from high schools and academies, as well as sharpen and define the sphere of each.

The graduate schools of universities offer no special difficulties to the Foundation, but the schools of law, medicine, and engineering that claim university rank abound in problems. Medical education in particular is often said to be shockingly backward in the United States in all but a few strong and well-favored institutions, and many merely nominal "medical schools" have been established in various towns by local physicians in order to gain prominence and income for themselves. So serious is this matter that the Foundation is making a special study of medical schools, both properly so called and otherwise, by means of special agents, who are inspecting and observing conditions at first hand. The public at large, particularly that portion of it which does not enjoy the advantages incident to residence in the cities and larger towns, is profoundly interested in the proper education of physicians and sanitary officers, and the forthcoming report of the Foundation on this subject may well prove to be of more than ordinary general interest. While giving the Foundation itself needed information as to the status and qualifications of teachers in medical schools, it will serve to inform and enlighten the public as to the good and bad in American medical education generally. After schools of medicine have been studied and the real status of medical education made known, schools of law, theology, and engineering will doubtless be similarly gone into.

All this may be said to be part of the general standardizing function which the Foundation was obliged to undertake in order satisfactorily to frame rules to govern retiring allowances to professors. That this standardizing process was badly needed in the United States is generally admitted, and yet there was no established authority to undertake it. It was quite beyond the province of the National Government, and the authority of each State stopt with its own borders. The Associa-

tion of American Universities and the Association of State Universities were at work on the problem, but progress was slow. The College Entrance Examination Board was accomplishing admirable results in its field, but it dealt with but one phase of the question. With all these agencies for order and reasonable precision, the Carnegie Foundation is coöperating, and in a way that is proving effective. Before long there will certainly be substantial agreement between all real colleges of liberal arts and science as to the quantity and quality of work to be required of candidates for admission to the freshman class, and the definitions of these requirements will not be imposed forcibly upon the secondary schools, but will be framed in cooperation with secondary school teachers and with fullest reference to the needs and purposes of purely secondary school teaching. This truly epoch-marking reform will, when it comes, be largely the result of the efforts of the Carnegie Foundation to define a college and to fix the line of demarcation between the proper work of the college and that of the secondary school.

In all this standardizing work there are many and serious dangers to be avoided, which President Pritchett and his associates fully understand and appreciate. Education is a dead thing when stretched on a Procrustean bed. The human element is always more important than the mechanical, and the needs of the individual pupil are paramount to those of any system; it is for him indeed that the system exists. It is far better educational policy to let ten unfit boys into college, there to prove their unfitness and to drop out, than to keep one thoroly fit and ambitious boy out of college, perhaps to the discouragement and detriment of his whole life. An educational standard is best conceived and treated as a normal minimum, from which departure is not only to be allowed, but encouraged whenever a human being will be more fairly treated by so doing.

Nor does the standardizing of the college mean that all colleges must do the same uniform thing in the same uniform way. It only means that the sphere of the college is to be marked out and the normal point of departure of its work

fixt. The more tenaciously the several historic colleges hold on to their traditions and their individuality the better. Dead uniformity is the last thing to be desired, and standardizing does not imply uniformity at all.

The Carnegie Foundation has been wise, and fortunate, too, in its policy of dealing whenever possible with institutions, not individuals. The retired professor receives the monthly payment on account of his annual retiring allowance from the same college Treasurer who paid him his salary while in active service, if that college is one of the seventy or more on the Foundation's list of accepted institutions. The college applies for the retiring allowances of its own professors, and receives the funds therefor from the Treasurer of the Foundation. This policy is judicious for many reasons, not the least of which is that it brings the Foundation into constant, close, and confidential relations with the accepted colleges and universities of the country, and enables it to work with them in many ways that are helpful and for numerous ends that are desirable. It is quite worth while, for example, to secure a general agreement that the fiscal year for college accounting shall begin on July 1, so that every Commencement season will virtually bring the statistical and accounting bureaus of each institution to the end of their year's work. College and university statistics, academic as well as financial, are notoriously incomplete, overlapping, and inadequate; and here again the Foundation, whose view takes in the whole country, can offer helpful suggestions in aid of simplicity, correctness, and uniformity, based upon the knowledge and experience it will acquire.

Not less important will be the effect of the Foundation's existence and operations on the salaries paid to college and university teachers. The tendency of these salaries for some years past has been markedly upward, and the Carnegie Foundation will serve to strengthen this tendency. In the first place, the cost to a professor of the privileges and protection which the Foundation assures him, even supposing he could purchase them from a life insurance company (which he can not do) has been estimated at from $1,000 to $1,200 a year in

the case of Columbia University. Each Columbia professor's compensation, therefore, is in effect at once increased by that amount, and the case is similar at the other institutions on the Foundation's accepted list. In the second place, the influence of the Foundation will lead—it is now leading—to a positive increase in the amounts paid in annual salaries to professors in institutions on the accepted list. Public attention has been called anew and in emphatic manner to the fact that the servants of the public in letters and in science are and have long been underpaid. As Mr. Carnegie himself wrote in his letter of gift, "the least rewarded of all the professions is that of the teacher in our higher educational institutions." This fact is now better understood than heretofore, and the movement to correct it is correspondingly accelerated. The Foundation has contributed, and will continue to contribute, to this end.

Established for the broad purpose of advancing the profession of teaching, the Carnegie Foundation will be increasingly resorted to for new and high types of constructive educational service. It will fill the gap in our educational system which the conditions attaching to our form of government have created; and it will fill it by what is virtually a system of cooperation among the strongest and best colleges and universities of the land.

The striking and significant force which the Carnegie Foundation represents and exerts has been brought into being, and is operating, in accordance with the best American traditions. It is not governmental, official, inquisitorial, and compulsory, but it has its roots rather in the soil of our American liberty. It proceeds by persuasion, cooperation, and the conferring of large benefits. None suffer, but all gain.

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VII

CURRENT EDUCATIONAL PUBLICATIONS[2]

Received during September, 1909

Akron, O. Board of Education. Rules governing medical inspection in Akron public schools. [Akron, Board of education, 1909] 7p. 8°.

American school hygiene association, Chicago, 1909. Third congress of the American school hygiene association, Chicago, Ill. February 22 to 25, 1909. [n. p.] 1909. 15p. 8°.

Bailey, Henry Turner. Instruction in the fine and manual arts in the United States; a statistical monograph. Washington, Gov't. print. off., 1909. 184p. 8°. (U. S. Bureau of education. Bulletin, 1909: no. 6)

"References to publications containing statistical data on instruction in the manual and fine arts": p. 182.

Boston. School committee. Tuberculosis among school children. [Boston] City of Boston printing department, 1909. 11p. 8°. (School document no. 2, 1909)

"Report of the commission appointed by the school committee of the city of Boston to investigate the problem of tuberculosis among school children."

Brown, Elmer Ellsworth. The culture of righteousness. From the Methodist review, September, 1909. [New York, 1909]

"An address delivered at Vanderbilt university, June 15, 1909."

—— United States Bureau of education. In National magazine, Boston, 1909. August, 1909, v. 30, no. 5, pp. 575-80.

One of a series of articles describing the departments and bureaus at Washington.

Cecil, Lord Edgar Algernon R. Six Oxford thinkers: Edward Gibbon, John Henry Newman, R. W. Church, James Anthony Froude, Walter Pater, Lord Morley of Blackburn. London, J. Murray, 1909. x, 301p. 8°.

"Authorities" at end of each chapter.

"This book is an attempt to treat . . . an idea or chain of ideas which exercise a profound influence upon the nineteenth century."—Introductory.

Colwell, N. P. The need, methods, and value, of medical college inspection. Chicago, American medical association. [1909] 11p. 8°.

Read before the Nineteenth annual convention of the National confederation of state medical examining and licensing boards, Atlantic City, N. J., June 7, 1909.

[2] Compiled by John D. Wolcott, Acting Librarian of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

Coon, Charles L. Public taxation and negro schools. Cheyney, Pa. Committee of twelve for the advancement of the interests of the Negro race. [1909] 11p.

Proves that the Negroes of Virginia, North Carolina, and Georgia, are paying more than their proportional share of taxes for the support of Negro schools.

Curzon, George Nathaniel. (Lord Curzon of Kedleston) Principles and methods of university reform; being a letter addressed to the University of Oxford. Oxford, The Clarendon press, 1909. 220p. 8°.

Falkner, Roland P. Some uses of statistics in the supervision of schools. . . . [Philadelphia, 1909] 8p. 8°.
Reprinted from the Psychological clinic, v. 3, no. 1, January, 1909.

Forsyth, David. Children in health and disease; a study of child-life . . . with frontispiece. London, J. Murray, 1909. xix, 362p. front. 8°.

"Public authorities are not yet sufficiently alive to the lamentable amount of preventable disease that exists among children, nor do they fully appreciate the necessity of basing our educational methods on the physiological and psychological requirements of the young . . . I believe that a book dealing with child-life from a scientific standpoint is needed at the present time."—Pref.

Great Britain. Board of education. Education in Russia. London, Printed for H. M. Stationery off., by Wyman and sons, ltd., 1909. 569p. 8°. (Special reports on educational subjects. v. 23)

Contents.—Introduction.—Historical sketch of Russian education.—Present position and organization of education in Russia.—The Russian primary school and its problems.—Secondary education in Russia and its problems.—The university question.—Technical instruction.—The commercial schools under the ministry of finance.—Historical summary and general considerations.—Bibliographical note.

Great Britain. Scotch education department. Memorandum on the teaching of music in Scottish primary schools. London. Printed for H. M. Stationery off., by Eyre and Spottiswoode, ltd., 1909. iv, 23p. 8°.

Hays, Willet Martin. Education for country life. Washington, Gov't. print. off., 1909. 40p. illus. 8°. (U. S. Dept. of agriculture, office of experimental stations. Circular 84)

Address delivered before the Minnesota educational association.
Contents.—Introduction.—Articulated organization of schools for country life.—County system of consolidated rural schools, or the farm school.—Agricultural high school.—Financing consolidated rural schools in Minnesota.

Herbert, Georges. L'education physique raisonnée. Paris, Vuibert & Nony. [1909] 185p. 8°.

Institut de France. Annuaire pour 1909. Paris, Imprimerie nationale, 1909. 231p. 12°.

MacDonald, James W. Language instruction in high schools of Massachusetts. [Boston, 1909] 64p. 8°.
Reprinted from the seventy-second Report of the Massachusetts Board of education.

Milford, Lionel Sumner. Haileybury college, past and present. London, T. F. Unwin, 1909. 336p. 8°

Includes, The Beginnings of New Haileybury and some reminiscences of early days.—The Masters.—The boys.—Old Haileyburians.—Athletics.—The school societies.—The chapel, old and new.—The studies.—etc.
"I hope that some parts of this book may interest members of other schools, but it has been written mainly for Haileyburians . . ."—Pref.

Norwood, Cyril, and **Hope, Arthur H.** The higher education of boys in England. London, J. Murray, 1909. 568p. 8°.

"The plan of the book . . . is not haphazard . . . it tries to state, within the compass of a single volume, both facts about higher education in this country and elsewhere, and the lessons which these facts would seem to indicate."—Pref.

Paddelford, Fred L. Short addresses on Industrial training, The American boy (Handle with care); Thanksgiving; Industry the golden pass key. Golden, Colorado, [1909], [The Industrial school press] [72p.] 24°.

Prince, John Tilden. Report on school organization and supervision, Kindergartens, sub-primary classes, primary and grammar schools, powers and duties of school superintendents, conveyance of children to school, mentally defective children, blind and deaf children, delinquent children. [Boston, 1909] 20p. 8°.
Reprinted from the seventy-second Report of the Massachusetts Board of education.

Sharp, Frank Chapman. Success; a course in moral instruction for the high school. Madison, The University, 1909. 118p. 12°. (Bulletin of the University of Wisconsin, no. 303. High school series no. 7.)

"This manual is intended to supply material for a year's course in Moral instruction in the high school. . . . The principal aim of the course is to develop a habit of thoughtfulness about the problems of daily conduct."—Introduction.

Warren, Julius E. Industrial education in the public schools. [Boston, 1909] 9p. 8°.
Reprinted from the seventy-second Report of the Massachusetts Board of education.

VIII

DISCUSSIONS

WHERE ARE THE LEADERS?

The EDUCATIONAL REVIEW for September, in *Notes and News,* says of the National Education Association: "Those who are coming forward to fill their place (referring to the leaders) are not, it must be admitted, very promising material.—Not a few of them are quite incompetent to make any contributions to educational thought, or to details of educational policy."

This remark has burdened my mind ever since I read it. I have not questioned its truth, for that is obvious to any man who has followed American education for twenty years or more closely. What I have been questioning is to what extent it is true, and why it is true, not merely of the National Education Association, but of all our educational situation.

Twenty years ago we were enthusiastic regarding the extension of the powers and responsibilities of educators in the superintendency, regarding the progress that was already coming thru normal schools, and that was hoped for from new colleges of education, and new departments of education in universities, and regarding the transformation of educational practise thru manual training, pedagogy, and psychology. The twenty years have seen the amount of money annually spent upon education doubled, and the number of high schools more than doubled, the development of several new or then small universities into their present greatness, and several cities educationally reformed, among them New York and St. Louis.

There is always the illusion of the present as compared with the past. We never quite see the present. But I confess that there was an inspiration about education in the late eighties and the early nineties that I do not feel now at all. It is quite true that I have seen a deal of life since then, as has indeed

every other survivor from that period. But it is not true that I am yet so old as to be loath to believe good of the present.

Matters have not workt out quite as planned. To illustrate: Twenty years ago, there was hope that the educational lines of school direction would be turned over to professional experts, leaving to laymen the financial matters. The very proposition has in many instances embittered the lives and defeated the efforts of school superintendents by arousing the jealousy of the laymen upon governing boards. Some states have actually retrogressed in consequence.

Those who have not given careful and candid thought to this matter, and very few have done so even among teachers, are unaware of the nature of the bulwarks against the direction of education by educators raised by the boards of control. To be specific: Wisconsin has 23,000 board members, and but 13,000 teachers, a ratio that precludes expert local educational direction. In Connecticut the three years' report of the State Board of Education for 1906-7-8 has just appeared. In it there is a list of school officers, which gives the names of all the 1,350 school visitors of the 175 towns of the state, including certain special districts. Of the eighty-five towns electing school superintendents, many choose laymen for that office. One town of 30,000 population has no superintendent, lay or professional. Last year, the Legislature of the state had before it eighty-eight reform bills dealing with education, and did almost nothing, primarily because of the resistance of the same school officers.

When one investigates, one discovers that in Connecticut school visitors and school committees have but little financial control. In consequence, they are but little more, tho sometimes something worse, than surplusage. With nothing of importance financial to do, they must deal with educational matters in order to justify their existence. But the unwise efforts of enthusiasts who have tried to take courses of study and similar matters out of the hands of these laymen without giving them something else to do, have but accentuated their interest in these educational matters by arousing their jealousy.

It is not my present purpose to raise for its own sake this question of who shall direct education, but to show its bearing upon the reduction in quality of the men in nominal charge of school affairs. Many boards are careful not to secure experts lest their own occupations be taken away.

With some notable exceptions, the men who are being promoted now in the lines of the school superintendency are not of the quality of their predecessors, but they resemble more and more the members of their own boards, being "business men." The same tendency seems everywhere to characterize the recent selections of principals of state normal schools, chosen by state boards,—likewise with notable exceptions.

But from a fairly extended knowledge of the country, after visiting forty-one states, I have come to the opinion that in personnel all other lines of educational endeavor are moving upward. Our professors of education in colleges and universities, our city normal and high school principals, and our teachers generally, are growing more efficient, and the entrants into the ranks are being chosen with more and more care. It is a highly significant thing that the school superintendents and normal school principals chosen by city and state boards try to get as subordinates the best persons available at the salaries, and often try to get better salaries. The reason is that the superintendents, and not the boards of control, or the still higher boards that manage the money affairs, are held responsible by the public for the educational conditions, and many a head, himself improperly chosen, rejects for subordinate positions persons of his own type and equipment. He acts, in short, for the public good as he best knows how, because not to act in the best interests of the school would endanger his own usually already precarious position.

Even their own subordinates hold the principals and superintendents responsible, as do usually their fellow-teachers elsewhere. This came home to me in a highly humorous way last summer. I had just completed a lecture in a Southern city when a high school principal of long experience arose and said that he liked it well enough, but that he thought it strange that the lecturer, "when superintendent of schools in the Dis-

trict of Columbia, had not removed the negroes from the board of education."

I am not of the interesting condition of mind which supposes that leaders are supprest. There is not much to be said for the idea of "looking for leaders." But at the same time, it does seems to me that for the National Education Association, the true future course is to encourage the presence upon the programs of university professors of education, and of principals of city high and normal schools. These are the men who may think of theirs as a life-work, and seriously discuss its principles.

The city superintendency and the state superintendency are not now and for many years will probably not be life-positions. They are temporary prizes. Few men serve in either of these offices more than three years. Men who have held two different superintendencies are few. Of men who have held four different superintendencies, one or more of them being of importance, I can count but four in this country. If any man is now in his fifth superintendency, I have not heard of him in that way. Taking a superintendency seems to me to be opening a hall door out into the common economic life; most men who lose or resign a superintendency go into "business." Few superintendents die in office; few retire because of old age.

There is at least one other reason why the National Education Association is now losing in number and quality of leaders. There have been recently too many transcontinental trips, taking too much time and costing too much money. Dividing the country into four regions, the Atlantic, the Mississippi Valley, the Rockies, and the Coast, we might well move regularly across the center of population, which is in Indiana, in such a way as this,—Cleveland, Denver, Boston, Milwaukee, Atlantic City, Minneapolis, Baltimore or Philadelphia, Los Angeles, Buffalo, St. Louis, then Cleveland again. Only regular attendants can be leaders.

William E. Chancellor

Superintendent of Schools
South Norwalk, Conn.

SCHOOL AFFAIRS AT MEMPHIS

The school situation at Memphis illustrates the baneful workings of personal politics and sectional prejudice.

More than three years ago, President I. C. McNeill, the highly respected and widely known head of the State Normal School at Superior, Wis., but formerly of Kansas City, Mo., was invited to Memphis to confer with the Board of Education. He was soon after selected to succeed General George W. Gordon, who had been elected to Congress, to the superintendency of the schools.

While there was opposition from friends of local candidates to a Northern man at the time of his election, Superintendent McNeill took up his work, knowing he had the support of the majority of the board as it was then constituted, and of most lovers of good schools, who hold:

> There is no North, South, East nor West in the domain of knowledge. The field of education should be as broad as the sea, and the schoolteacher, if he be a man of common sense, is valuable in Memphis tho he came from Rhode Island, just as he would be valuable in Princeton, tho he were born in Tennessee.

Without exception the newspapers of Memphis gave Superintendent McNeill fair and friendly treatment. Gradually, but surely, lines of improvement were established and supported. Memphis began to be placed on the educational map of the nation. The addresses Superintendent McNeill gave before the Teachers' League every two weeks during the last two years of his term of office were largely attended by enthusiastic teachers. Courses of study in harmony with modern standards were made and followed. Equipment and courses worthy a city high school put the Memphis high school on the list of accredited high schools. Teachers took advantage of opportunities to seek better equipment. It is said that more than fifty-five per cent. of the white teachers enrolled in summer schools during vacations. An advance in salary was twice made, amounting to about twenty per cent. Thru the cooperation of thousands of taxpayers Memphis reached the proud position of standing first in the South in the payment of teachers' salaries.

In the confusion of issues at the general election last November, one new man was elected to a place on the Board of Education. In July, on the day for the election of Superintendent McNeill to succeed himself, as the community thought, without warning to the citizens, the president of the board, who had been a candidate for the superintendency two and a half years before, entered into a compact with the new member, and one of the old members, who had never become reconciled to the "Yankee," to "change things up." Superintendent McNeill's two public-minded supporters could not save him. The next day, and for many succeeding days, all the daily papers and a large proportion of the citizens made it personally uncomfortable for the trio, but without avail. The deposed superintendent prudently did not wish his friends to force his reinstatement.

The following abstract from the *Commercial Appeal* mildly puts the generally accepted views of the matter:

> The public schools of Memphis made great progress during the last two years. The School Board, as people thought, had ceased to be an annex to the various political machines of Memphis. The people themselves had confidence in the Board, in the teachers and in the Superintendent, and they did not resist a $500,000 bond issue for a new scheme of education which was added to the great burden of taxation in this city.
>
> Great educators do not seek positions where political favor may be the test of ability in holding educational office. If the school superintendent has to watch politics and watch his schools at the same time, the schools get half of his time and, when politics get hot, less than half. The wrong of the whole thing, then, is against the defenseless child.
>
> Memphis has had some severe jolts within the last month. The worst blow is in the confusion that will follow the disorganization of the public education forces.

Public opinion prevented the consummation of plans of local men to secure the superintendency. Dr. Thomas P. Bailey, Dean of the Department of Education of the State University at Oxford, Miss., was elected.

Superintendent McNeill declined the chair of ethics and philosophy in the University of Mississippi, which was tendered him in September, and has formed a business connection which may, we regret to say, result in his permanent retirement from the educational field.

A Looker-On in Memphis

FACTS FROM THE COMMISSIONER OF EDUCATION'S REPORT

The fact that Leland Stanford Junior University, with an endowment of $24,525,922, leads the list of American universities in this regard is only one of a host of interesting points brought out in the report of the Commissioner of Education for the year ended June 30, 1908, the second volume of which recently appeared from the press of the Government printing office. The California institution is closely followed by Columbia University, the amount of whose endowment funds (excluding value of grounds and buildings) is $23,542,264, and Harvard is third on the list with an endowment of $20,272,346. Other large endowments are found at the following universities: University of Chicago $13,999,900, University of Pennsylvania $12,352,687, Yale $9,200,000, Cornell $8,594,329, Washington University (St. Louis) $5,206,521, Johns Hopkins $4,470,000, University of California $4,121,805, and Northwestern University $4,005,309. Princeton's endowment is comparatively small, and efforts are being made by the alumni of this institution to increase the amount of the endowment funds of their Alma Mater, which at present amount to $3,938,200, a sum that appears especially low when compared, for example, with a college like Dartmouth, that possesses an endowment of $2,528,000. New York University has an endowment of $1,119,728.

In the first volume of the report will be found the usual introduction by the Commissioner, Dr. Elmer Ellsworth Brown, who has succeeded in having the figures for the academic year 1907-08 published before the close of the following session, this being the first time in many years that this has been accomplished, altho some of the school statistics are those for 1906-07. The introduction points out that the educational systems and institutions of the United States, public and private, enrolled in the year 1906-07 in the neghborhood of nineteen millions of pupils of all grades and classes. There has been no change for thirty years in the percentage of the total population in attendance on the common schools, the percentage remaining at about twenty. The average length of

the common school year, however, has advanced during that period from one hundred and thirty to one hundred and fifty-one days, and there has also been evident for some years a striking increase in the number of pupils in attendance on secondary schools. The Commissioner points out that one person out of every ninety of the population of the United States was enrolled in a secondary school, and that one out of every three hundred was in attendance on an institution of higher learning. In June, 1907, the population of the country was estimated at 85,526,761, among whom were 24,262,936 persons of school age, that is, between the ages of five and eighteen. Of these only 16,890,818, however, were enrolled in the common schools, that is, only 69.6 per cent. of the school population, as against 72.4 per cent. in 1900, 68.6 per cent. in 1890, 65.5 per cent. in 1880, and 61.45 per cent. in 1870. That a considerable proportion of children never complete their school education is attested by the somewhat disconcerting fact that only 224,970 school pupils were enrolled in the eighth year, as against 723,625 in the first year.

The number of male teachers in the common schools of the country has been declining for over ten years, these numbering only 21.7 per cent. of the total number in 1906-07, namely, only 104,414 out of a total of 481,316 teachers. In 1900 the percentage of male teachers was thirty, in 1890 thirty-four and one-half, and in 1880 forty-three per cent. In 1906-07 the average monthly salary of teachers in the public schools was $50.30, the average for men in the states making a sex classification being $58.06, and for women $44.08. 259,355 buildings were used for school purposes, and the value of the property belonging to the public school systems was estimated at $858,655,209. The school expenditure for 1906-07 was $336,898,333, or $3.90 per capita of population. This shows a considerable increase over preceding decades, the per capita expenditure in 1900 being $2.84, in 1890 $2.34, and in 1880 only $1.56. Of this total school expenditure $65,333,340 was employed for buildings, sites, furniture, libraries, and apparatus, and $202,047,814 for teachers' and superintendents' salaries. 259,355 buildings were used for school purposes,

and the value of school property belonging to the public school systems was estimated at $858,655,209, as against $130,383,008 in 1870.

The Commissioner lays considerable stress in his introduction on a discussion of the state educational commissions, of which the greatest attention has been attracted by the Massachusetts Commission on Industrial Education appointed by the governor of that state on August 31, 1906. This commission is appointed to investigate methods of industrial training and local means, to advise and aid in the introduction of industrial education in independent schools that may be established, and to provide for lectures on the importance of industrial education and kindred subjects. Attention is also given to the remarkable public school campaign now in progress in most of the southern states. One of the objects of this campaign is the consolidation of rural schools, and it is pointed out that about two hundred schools had been consolidated to sixty in the state of Virginia during the year 1906. In the same state the state appropriation had been increased from $1,062,981 in 1904 to $1,459,288 in 1907, and the number of high schools in this state had grown from sixty-four to one hundred and thirty-nine during the same period.

Five hundred and seventy-three colleges and universities (eighty-nine public institutions with 60,258 students, and four hundred and eighty-four private institutions with 102,660 students—exclusive of the preparatory and professional departments) submitted reports for the year 1907-08, of which (a) one hundred and forty-three were open only to men, (b) three hundred and twenty-one to men and women, and (c) one hundred and nine to women only. Instruction was imparted at these institutions—omitting the ninety-three girls' colleges whose requirements for admission and advancement are inferior to those of the sixteen colleges for women on the accepted list—by almost 25,000 teachers, of whom over 4,500 were women. These institutions of higher learning were attended by 106,945 men and 43,242 women, as against 96,575 men and 40,462 women in 1906-07, this being the first time in a number of years that the number of men shows a larger

percentage of increase than the number of women. Ten years ago there were 67,018 men and 23,470 women in attendance on higher institutions of learning, showing a gain of sixty per cent. in the number of men, and of seventy-seven per cent. in the number of women.

The institutions included above under a) and b) in 1908 conferred the degree of bachelor of arts upon 5,406 men and 4,540 women, as against 5,812 men and 4,183 women two years ago, showing that within a few years this degree will be conferred upon more women than men. The degree of bachelor of science, on the other hand, was conferred upon 4,359 men and 792 women; that of bachelor of philosophy upon 723 men and 458 women; that of bachelor of letters upon 141 men and 412 women; various engineering and architectural degrees upon 1,451 men and 2 women; that of master of arts upon 1,226 men and 405 women; that of master of science upon 198 men and 24 women, and the degree of doctor of philosophy upon 343 men and 51 women. The largest number of doctorates were awarded by Columbia (55), Chicago (54), Harvard (43), Yale and Pennsylvania (32 each), and Johns Hopkins (28). At the 1909 commencement Columbia conferred the Ph.D. degree upon no fewer than 69 individuals.

The total income of the institutions listed under a) and b) amounted for the year under review to $66,790,924, as against about forty-five million dollars two years ago, and of this amount only about seventeen and one-quarter million dollars represented tuition fees. During the year these institutions received gifts and endowments to the value of over fifteen million dollars, of which the University of Chicago was presented with over two million dollars, Columbia (including Barnard and Teachers College) and Princeton with over one million dollars, the University of California and Harvard with over half a million, and Colorado College, Bowdoin College, Washington University, Syracuse University, and Western Reserve University with over a quarter of a million dollars each.

Sixty-eight institutions are included in the list of agri-

cultural and mechanical colleges which receive financial aid from the Federal Government in accordance with the acts of Congress of August 30, 1890, and March 4, 1907. Since the appearance of the last report, the College of Agriculture and Mechanic Arts of the Territory of Hawaii, at Honolulu, and the University of Porto Rico have been added to the list. These colleges were attended by 68,839 students, a gain of 6,058 over the previous year, almost seven thousand of the students being enrolled in separate schools for negroes. The number of students in attendance on the engineering and technological schools of the country is still increasing, tho not as rapidly as five or ten years ago, while the agricultural schools are making rapid headway in the matter of enrollment.

There has been a gain over 1906-07 in the enrollment of students attending schools of theology, law, and pharmacy, whereas medicine and dentistry continue to experience losses. 9,583 students, including 550 women, were matriculated in the 156 theological seminaries, the increase being one of 405 students over last year. The number of law students has advanced to 18,069 (including 379 women), a gain of 369 over the previous year, while in 1895 there were only 8,950 students registered at the various law schools of the country. Reports were submitted by 108 law schools and 149 medical schools, the latter being attended by 22,787 students, showing a loss of almost a thousand in comparison with 1907. This annual decrease of approximately a thousand students set in about five years ago, and has continued unchecked ever since. The 55 dental schools, with an enrollment of 6,519 students, show a loss of 400 against 1906-07, there having been 8,298 students of dentistry five years ago. Nine new schools of pharmacy were established during the year under review, and the seventy-five existing schools attracted 5,567 students, an increase of over 500 over 1907. The medical schools furnished the largest number of graduates in 1908, namely, 4,802, as against 3,999 graduates in law, 2,037 in dentistry, 1,644 in theology, and 1,529 in pharmacy. The theological schools enrolled the largest percentage of college graduates, viz., forty-

one per cent., whereas only twenty-one per cent. of the medical students, ten per cent. of the law students, and 1.4 per cent. of the dental and pharmaceutical students possest a baccalaureate degree.

The attendance on the normal schools, strange to say, has dropt from 97,541 in 1907, to 92,391 in 1908, of which number 76,605 were in attendance on public and 15,786 on private institutions. Practically all of the states and territories support normal schools; in Tennessee the state provides the tuition fees for a large number of students at the Peabody Normal College, which is a private institution located at Nashville, while Delaware, Nevada, and Wyoming provide for the training of their pupils in the respective state colleges. In spite of last year's decrease in attendance, the normal schools are enjoying a period of prosperity and advancement, which is evidenced by the fact that the annual budgets of the public institutions in this category rose from $1,312,419 in 1890 to $4,640,996 in 1908, and that in the latter year no less than $3,127,490 were appropriated for buildings and improvements, as against $1,595,693 in 1907, an increase of almost 100 per cent. in a single year.

Altho the above summary follows the report of the Commissioner somewhat closely, it will no doubt be appreciated by those who have not the time or the opportunity to study the complete document.

Rudolf Tombo, Jr.

Columbia University

IX

REVIEWS

Critical essays of the seventeenth century—Edited by J. E. SPINGARN, 3 vols., Oxford, at the Clarendon Press, 1908.

Criticism adapts itself to the purposes of the anthologist better than most other types of literature. In comparatively small compass it is possible to present the most significant monuments of thought in this department. The scholar who undertakes to winnow the wheat of criticism from the chaff will himself require high critical powers, but, granted his possession of these, he will perform a service that merits grateful recognition, and the value of this service will be enhanced in proportion as the matter dealt with is difficult of general access.

Professor Spingarn, of Columbia University, has already proved himself an adept in dealing with critical theory. His *Literary criticism in the Renaissance,* which has recently been reissued, first revealed the extent of the debt of France and England to Italian writers of poetics. Now, in preparing a collection of the critical essays of the seventeenth century, he offers a body of literature that has long demanded such treatment. His work fills in the gap between Professor Gregory Smith's *Elizabethan critical essays* and Professor Ker's *Essays of John Dryden,* and it is of worth, not only for the texts it reproduces from first editions, but also for the notes and its extensive introduction.

This introduction, indeed, constitutes a compendious history of English literary criticism during the seventeenth century. That century was a period of development and organization. At its dawn Bacon contributed the conception of imagination as the creative force of poetry, transmuting life into forms more satisfying to the mind than actuality. Then Jonson, who had early been inspired by Sidney's *Defence,* and who was

yielding gradually to a colder classicism, introduced the English to the critical pronouncements of the post-classical rhetoricians and of Dutch scholars like Heinsius. Hobbes evolved a new psychology that recognized the mind as holding and combining impressions received by it from a mechanical universe. For him, accordingly, the source of perspicuity and of decorum was to know nature well, and the source of variety and novelty of expression was to know nature variously. The century developed a theory of translation that allowed increasingly for freedom from literality; it developed also a defense of morality in art based partly upon ethics, but more largely upon common sense; and it fulminated an attack upon far-fetched conceits, which Professor Spingarn discusses with regard to one literary form in particular—the sermon.

But the transitional character of the time he has best made clear by indicating the steps it took in formulating a critical terminology. Such words as wit, humor, nature, sense, taste, and virtuoso changed surprizingly in content during the period, and by the end of the century most had taken on their present significance. Wit, which in Elizabeth's day had denoted intellect in general, came presently to mean ingenuity or fancy, and then, under the influence of rationalism, fancy properly restrained by judgment. Humor, which from its primal medical sense had been extended to include the general disposition of men, was narrowed by Johnson into a singularity of character distinguishing the individual from all others. Then, in France, it was enlarged to signify the keen perception or unconscious expression of the incongruous, a meaning that soon lost currency abroad, but which was borrowed and retained in England. *Virtù,* which had once been applied to individual will, came to be applied to intellectual power and cunning, and later to esthetic talent and accomplishment, so that the virtuoso of the Royal Society was the antiquarian, the scholar, the scientist, or the artist, interested, according to Hobbes, in particulars of past and present experience, and guided by taste; he was opposed, therefore, to the wits or devotees of fancy on the one hand, and to the critics or advocates of authority on the other. Taste itself, a word used by the ancients chiefly

in its physical sense, found application of art, and the Spaniards gave it European standing, altho the concept of taste as a special function of the mind reached England principally thru France. This taste, which was at first regarded as a mere instinct or sentiment, an individual whim, was soon rationalized, and not only was good taste distinguished from bad, but the work of art came to be relished by it in relation to the process of mind and the external circumstances determining its creation, rather than *in vacuo*.

If Professor Spingarn is helpful in tracing historically these subtle shifts in the meaning of critical terms and theories, he is not less happy in his consideration of individual critics. His treatment of the much-berated Thomas Rymer is a case in point. Instead of heaping abuse upon Rymer or poking fun at the more fallible of his concrete judgments, Professor Spingarn attempts to understand and to explain him. Rymer's service was no mean one. He developed a method of judging poetry by particulars and illustrations. In his dramatic criticisms he recognized the determining influence upon the play of the physical conditions of the theater. Without being a moralist in poetry, he evolved a theory of poetical justice based upon the idea that the poet must give some notion of order in the world, if he would be true to nature. For Rymer, indeed, nature and sense were the shibboleths of criticism. Nature meant the universe conceived as governed by law, the rules of art representing the order found in nature; while sense meant the common reason of men, which Rymer held quite adequate to cope with the problems of literature, unsupported by a knowledge of critical theory. Thus he adopted the attitude of *The rehearsal,* trying all things by the test of common sense, justifying the unities as rational deductions, declaring that the laws of poetry must approximate the laws of life, and with such criteria studying great works of the past as a pioneer in literary research. His method was analytical and comparative. He seized upon a temporary phase of Dryden's criticism, the reactionary spirit of *The defence of the epilogue,* but he differed from his master in his burly dogmatism and in his interest in particulars rather than ideas. For

the neo-classicists he was, as Pope exprest it "one of the best critics we ever had." For the moderns he has been, as Macaulay put it, "the worst critic that ever lived."

Now, whereas Professor Saintsbury, in his *History of criticism,* has simply echoed the statement of Macaulay, Professor Spingarn endeavors to explain the reason for the divergence here of classic and romantic views. In a romantic age, he says, the test of a man's criticism is his judgment of individual poems or poets ; in a classical age it is his doctrine and his method. Rymer's individual verdicts and impressions may often have been erratic, but these alone are not sufficient to determine his rank as a critic.

Here, as elsewhere, may be recognized the conflict between the impressionistic and the philosophic school of literary historians. Professor Saintsbury represents the former, and Professor Spingarn—the unnamed object of his British confrère's diatribe against "philosophic criticism," [1]—represents the latter. To Professor Saintsbury we are indebted for immense industry and a wealth of knowledge, agreeably displayed; to Professor Spingarn we are grateful for the philosophic synthesis that can illumine and interpret facts.

FRANK W. CHANDLER

POLYTECHNIC INSTITUTE OF BROOKLYN

Writing and speaking—a textbook of rhetoric. By CHARLES SEARS BALDWIN, A.M., Ph.D., Professor of Rhetoric in Yale University. New York: Longmans, Green & Co., 1909. xvii+445 p. $1.20.

Professor Baldwin's *College manual of rhetoric,* published several years ago, is probably the most helpful textbook of composition for those who have mastered elementary matters of form and are seeking an approach to literary art. By this very fact, however, it is too advanced for high school students or even for freshman classes in college. The present volume, *Writing and speaking,* is clearly intended for younger students, and in exercises and illustrative material at least, if not always in brevity and simplicity of precept, it is well adapted to their needs.

[1] *History of criticism,* vol. iii, p. 141 *sq.*

The book deals with oral as well as written composition, but not, as its name might suggest, with elocution. In arrangement and in contents it departs from the ingenious scheme formulated by Professor Wendell in his *English composition* and since then frequently followed. Taking clearness and interest as the two fundamental aims in composition, Professor Baldwin considers each of these in connection with the kind of writing in which it is most essential—clearness with exposition and interest with description. The first part of the book closes with a chapter on planning and paragraphing, and another on revision and the form of the sentence. The second part, less elementary and less necessary in high school work, contains practical chapters on the use of books and the collection of notes, the presentation of reading in argument, the structure of narrative, style, and the forms of composition in literature.

For class use, if simplicity of instruction and plenty of examples and exercises are desirable, the book seems not in all respects satisfactory. At times the author says more than is necessary or much that is of use to the teacher rather than the pupil. For the teacher at least the book is invaluable. It is original, fertile in suggestions, and adapted to the constantly changing uses to which writing is now put.

Allan F. Westcott

Columbia University

It is not going beyond bounds of strict truth to say that the newly published edition, bearing date 1910, of Webster's *New international dictionary* is by all means the first single-volume dictionary of the English language for everyday use on the teacher's desk or in the business man's office. If imitation is the sincerest flattery, then surely the great lexigraphical work begun so long ago by Noah Webster has received astonishing encomiums. This new edition, a volume of 2,700 pages, with 6,000 illustrations, carries the development of dictionary making beyond even the standard set by its predecessors. It is practical, clear, and complete. A treatise might be written on the scholarly zeal which has gone into its making, but to en-

large upon the features of such a book is rather the province of a journal of philology than of this REVIEW. (Springfield: G. & C. Merriam Company, 1909. 2,700 p.)

It is a satisfaction to note that a third edition has been called for of the interesting and important *Introduction to public finance,* by Professor Plehn, of the University of California, which first appeared in 1896. (New York: The Macmillan Co., 1909. 480 p. $1.75.)

A new volume of selections for the use of students of politics is entitled *Select orations,* edited by Professor Harding, of the University of Indiana. The orations are chosen to illustrate American political history, and extend from James Otis and Patrick Henry to Carl Schurz and Booker T. Washington. (New York: The Macmillan Co., 1909. 520 p. $1.25.)

The third volume of Professor Spingarn's delightful *Critical essays of the seventeenth century,* covering the period from 1685 to 1700, has just appeared. (Oxford: Clarendon Press, 1900. 376 p.)

A college algebra, made by Professors Rietz and Crathorne, of the University of Illinois, presenting familiar material in new ways and with ingenious problems, is to be added to the list of college textbooks worthy of careful examination. (New York: Henry Holt & Co., 1909. 261 p. $1.40.)

A new edition of Cæsar's *Gallic war* has been made by A. E. Hodges, instructor of Latin in the Wadleigh High School, New York. (New York: The Macmillan Co., 1909. 522 p. $1.25.)

Representative biographies is the title of a good book to pick up for an hour's reading now and then. The editors, Messrs. Copeland and Hersey, of the department of English at Harvard University, have selected the material of which the book is composed, and they have done it very agreeably. Both the autobiographic and the biographic selections are in themselves well worth the prominence given to them. (New York: The Macmillan Co., 1909. 642 p. $1.25.)

X

NOTES AND NEWS

Chemistry and Character

One of the most suggestive addresses made at the recent meeting of the British Association at Winnipeg was that delivered by Professor Henry E. Armstrong, as president of the chemical section.

Professor Armstrong is well known and remembered in the United States as a member of the first Mosely Commission, and as a trenchant and suggestive writer on fundamental educational problems.

The following extracts from Professor Armstrong's address will, we are sure, be gladly read by American teachers:

We have been led to recognize that our scheme of popular elementary education is a terrible failure, that its whole tendency has been to emasculate our population; yet at the very time that we are making this discovery we are beginning to force our higher education along lines which experience shows must be ineffective—along literary lines. I should be the last to deny that there is an undercurrent of improvement perceptible but this is directed only by sporadic influences and is in no way favored by most of those in authority. We are still suffering at the hands of those who have been our persecutors in the past—the clerics, who control most of the schools and whose outlook is almost as narrow as it ever was. The saving grace of science has in no way entered into their souls—how can it? The universities make no attempt to secure their redemption. London of late years has even reversed the enlightened policy the university so long pursued, and has allowed Latin to figure as alternative to science, not as the complement of science.

If properly taught in schools, chemistry will afford a means superior to all others, I believe, of training faculties which in these days should be developed in every responsible citizen. No other subject lends itself so effectively as a means of developing the experimental attitude of mind—the attiude of working with a clearly conceived purpose to a desired end, which is so necessary to success in these days; and if care be taken to inculcate habits of neatness and precision and of absolute truthfulness, if care be taken to teach what constitutes evidence, the moral value of such work is incalculable. But to be effective it must

be done under proper conditions, systematically; the time devoted to the work must be adequate; I would even advocate that the subject be allowed to come before conventional geography and history and other unpractical subjects, assuming that the training is given in a practical way and with practical objects in view, not in the form of mere lessons learnt by rote; if taught in the form of mere didactic lessons it is as worthless as any other subject as mental discipline. Let me add that I would confine the teaching to a narrow range of problems but make it very thoro with reference to these.

Five-and-twenty years ago I made my appearance as an advocate of what has been dubbed the heuristic method—the method which entails putting the learner in the attiude of inquirer, in training the pupil to inquire always into the meaning of what is learnt. I believe it to be in principle the only true method of learning. The idea has found favor almost generally but the progress made in applying it has been slight—and this was to be expected, as teachers were few and far between who could carry the method into execution; moreover, so few teachers will allow their pupils to learn: they are too impatient and insist on teaching them and on doing the work of teacher and learner—in fact, in these days, the learner is a rarity; examinations have almost destroyed the breed. If here you desire that your children shall grow up virile men and women with some honesty of purpose left in them, you will end and not mend a system which is sucking the very life-blood out of the youth in the Mother Country—you will insist that your children shall be taught little but learn much.

When studied as a special object, chemistry, in particular, is one of the subjects which must be worked at long and persistently—mere technical skill counts for so much and so few seem to possess the ability to become skilful chemists; in no other science does the element of understanding and an indefinable power of appreciating the character of changes as they occur play so conspicuous a part—in no other science is the faculty of judgment more necessary. In practise, the chemist in works is constantly called upon to exercise his judgment—he is only too often called upon to judge from appearances of conditions which are deep-seated; he is everywhere the works physician in fact. It is therefore necessary that he should be highly trained and thoroly versed in the art of inquiry. The men who in my experience have been successful are those who have learnt to think for themselves and who have been capable independent workers—sufficiently broad-minded and sufficiently practised in their art to be able to turn their attention in any desired direction; I should add that they have been men who have learnt to read—a much neglected art. Much has been said and written of late on the subject of technical training which is of value as bringing out the various points of view; the problem is a very difficult one, owing to the great number of interests to be considered and more especially the very uneven and often inferior quality of the material to be trained. The great danger of specialized technical training is the tendency to make it too narrow. Success in practise depends not merely on knowledge of subject but also, if not mainly, on the possession of

certain human qualities which are not usually developed in the technical school and cannot be tested by examination—it is unnecessary to specify them.

It is undeniable that in England for many years past chemistry has suffered from the recognized fact that there has been little money in it —parents have been led therefore to prefer other careers for their sons and the subject has not secured its due proportion of intelligence and is suffering in consequence. Too many of those who have entered works have had neither the intelligence nor—to speak plainly—the presence and manners that are required to secure confidence. The presence of men of gentlemanly bearing and instincts, who have received thoro training in science, is urgently needed at the present time in many of our manufacturing establishments, to take the place of foremen of the old type, who have learnt all they know in the works and whose conceptions necessarily lack breadth; it is almost impossible to convince such men that improvements are possible; too often they adopt a selfish attitude and advisedly retard progress.

In Germany the chemist and the engineer have been placed on an equality and required to work together, with results which are altogether satisfactory. We need to adopt a similar practise. Any attempt to fuse the two into one will meet with failure, I am persuaded; they are called upon to work from different points of view—they need to be in sympathy and to understand one another but their work is complementary. I have watched engineering students closely during years past and am satisfied that, on the average, they represent a type of mind different from that of the chemist—the tendency of the one is to be constructive and of the other to be reflective: the analytical work done by the chemist in the laboratory is but the means to an end in the same way that the work done by the engineer in the drawing office is. Our future engineers should study chemistry and chemists should study engineering, in order that they may understand one another and work together—not in order that they may supplant one another.

Requirements for a Good Medical Student

In his Commencement address delivered last May before the Medical School of Washington University, Dr. Charles S. Minot described a good medical student in these words:

The man who purposes to study medicine should have in high degree three gifts, not one of which is common among mankind, yet all of which he must have. The three gifts are: the power of reliable observation, intellectual endurance, loyalty.

If the estimate we have made of the needed capacities of a physician be correct, it follows that a good medical school can exist only with good students. Coins of full value can not be made of impure metal. We must, therefore, start with the consideration of the means to select students to the exclusion not merely of the bad ones, but also of the

mediocre. We must not attempt to mint doctors from merit basely alloyed. Examinations should have their main use, not as a means of admission, but as a means of exclusion, and the more men of low and middle rank that are excluded the better. One poor student damages a whole class. We should look forward to the exclusion of all men who fail to get high marks in the preliminary tests, so that there may be a reasonable probability that all who get in are capable of hard sustained mental work and of loyalty to their studies. The examinations ought, however, to accomplish more than this: they should afford evidence that the candidate has a natural power of observation, and that the power has already received some scientific discipline, and, finally, they ought to prove that the candidate has the preliminary knowledge of chemistry, physics, and general biology without which the pursuit of the medical sciences is impossible. It is a welcome sign of progress that these entrance requirements are being rapidly adopted by the medical schools of the country, and there is, I am glad to perceive, a steady advance toward uniformity. In my opinion, such a preliminary training, with the appropriate sifting of the unfit, can be accomplished by two or three years of college work—and it is not and can not be accomplished by requiring an A.B. degree (or its equivalent) unless that degree represents adequate courses in chemistry, physics, biology, French and German. Under the prevalent elective system, a man may become a bachelor of arts and yet be not only undisciplined, but also very ignorant of natural science. I have had to do with many such men, and can only say that they are so inferior at the start that only the most brilliant of them can overcome the heavy handicap. Indeed, I can not affirm that even the brilliant men are able wholly to repair the evil, for in the rush of medical study they have no time to make up their deficiencies in the preliminary sciences. They enter as cripples and as cripples still they are likely to graduate from the medical school.

Although observation is the foundation of knowledge, and no human knowledge is built on any other foundation, men of intellectual power are by no means always interested in observation. There are mathematicians who can scarcely be said to feel interest in any observations. I often recall with amusement a distinguished mathematician whom I would not have trusted to make an original observation beyond a simple measurement, and yet who condescendingly explained to a company of biologists that their science must remain inaccurate until its results were mathematically formulated. The reply might have been made to him that no mathematical result can be accuratey known until put in graphic form, so that it can be observed. The one half-truth is as good as the other. Our mathematical friend had still to learn that there is an accuracy in a complex visual image with which mathematics can not even distantly vie. We might construct a scale, with the anatomist at one end and the mathematician at the other; both alike depend on observation, but one seeks his accuracy chiefly in the renewal and extension of his personal observations—he loves first-hand knowledge; the other seeks his accuracy in the logical evolution of quantitative relations, and cares but little for the simple observations on which his

mathematics depends. Between these two extremes we must range those minds which enjoy and seek both observational and logical satisfaction, and who are often experimenters. Among experimenters there is a wide range in the degree of relative interest—on the one hand, in what can be directly observed, and, on the other, in the logical work following the experiment. Only those in whom the love of observation is predominant are likely to succeed as physicians. For the pure experimenter there is plenty of room in medical science, but he can hardly find his right opportunity in medical practice.

The natural observer differs both from those who, like the humanitarians, are satisfied by second-hand knowledge, and from those who prefer experimental work, by his insatiable craving for seeing, and, to a less extent, for hearing and feeling. His inborn need is to have direct contact with the phenomena. Nothing short of the personal acquaintance with the phenomena satisfies him. Now those students who while in college elect the humanitarian studies, and neglect the natural sciences, are extremely unlikely to have the observing faculty. If they are required to study chemistry, physics, and biology before they get to medical work they will be tried out, and those who have not the observer's gift, will learn their limitations in time to avoid becoming medical impedimenta.

The Autumn Academic Celebrations

There have followed in rapid succession the formal exercises attendant upon the inauguration of President Lowell of Harvard, President Nichols of Dartmouth, and President Bryan of Colgate. These will be followed within a few days by the formal induction into office of President Shanklin of Wesleyan University. The functions at Harvard, at Dartmouth, and at Colgate were all marked by dignity and impressiveness. Large and representative gatherings of scholars from both the United States and from Europe were present, particularly at the Harvard celebration. On each occasion the dominant note has been one of hopefulness and confidence in the vitality and progress of our higher education. Faults and shortcomings have been neither denied nor concealed, but the overwhelming preponderance of opinion has been that these faults and shortcomings can be, and are being, corrected. Here and there is heard occasionally a single voice protesting that our higher education is in bondage either to the unfortunate tribe of college presidents or to the horrid politicians or to the tyran-

nical benefactors of great wealth. These protests reflect, however, an habitual state of mind, rather than any knowledge of the facts. American higher education is freer today than it ever was, and it is steadily throwing off whatever limitations of an earlier period it still suffers from.

It is plain, and the formal addresses at these academic celebrations have emphasized the fact, that the central point of our present-day educational problem is the college. It is nearly thirty years since Mr. Andrew D. White, then President of Cornell University, pointed out what would probably happen to the American college with the growth of the university spirit and ideal in this country, and it is more than forty years since President Barnard of Columbia, in a painstaking and widely influential study of statistics, showed that the college was losing ground when the growth of the population was taken into account. From that time to this the college problem has been under the most careful observation, and while very different solutions of that problem have been proposed and attempted, it is worth while bearing in mind that all these solutions have proceeded on the assumption that the college and college training are something to be saved, not sacrificed.

With all the manifest activities and problems of Harvard before him, President Lowell in his inaugural address selected Harvard College, and particularly Harvard College freshmen, for consideration. Those somewhat hasty critics who are in the habit of saying that the large universities overlook the college problem and forget the college freshmen might well have their attention drawn to this fact.

EDUCATIONAL REVIEW

DECEMBER, 1909

I

THE SCHOOL AND INDUSTRIAL LIFE

The American school is under fire—it is always under fire. Just now it is said that its curriculum is overloaded with fads and frills which burden the child and hamper his training in subjects essential to his success in life. Public opinion is critical of a system which makes easy the advancement of a few to positions of commanding influence, but which provides no vocational training for the many who can not afford to remain in school beyond the elementary grades. The demand is for equality of opportunity in education without regard to social rank or wealth or any special privilege, that kind of equality which enables one to become a good American citizen, and which, as I understand it, is established on the ability to earn a decent livelihood and the determination to make one's life worth the living.

The instruction given in our public schools is chiefly of two kinds: (1) humanistic, including language and literature, history and civics, and the fine arts; and (2) scientific, including mathematics, geography, physics, chemistry, and biology. Our schools also provide for training in the practical arts which are required in the study of these subjects, preeminently the arts of reading, writing, singing, and drawing. Of late years the attention given to hygiene has begotten systematic training in gymnastics and athletic games. Our school work, however, is bookish, a term of reproach with some, but properly understood it stands above criticism. That which is worth knowing about human progress is for the most part contained in books.

The scientific studies, as well as the humanistic, have been recorded in books; indeed, it would hardly be creditable to our civilization if the achievements of one generation were not made available for the generations that follow after. And what form more enduring, what form more available, than in writing which may be read by all who are willing to master the conventional arts confirmed by use and tradition! If our schools are culpably bookish, it is because our teachers misuse the book and confound methods of teaching with the acquisition of knowledge. Given something to learn, whether contained in a book or not, it is the teacher's business to see that the learner approaches his task in such a way as to make his progress certain and the results secure. If motor expression will help ease the way or better define the end, the good teacher will surely use it. And one should know that reading, writing, and singing are as truly means of motor expression as drawing or dancing or handiwork. In so far, therefore, as the aim of learning is to acquire knowledge, there is no good reason for spending an hour in manipulation when the fact may be as well taught without it in a minute. On the other hand, the fact which calls for motor expression and the process which demands technical skill, may never be acquired in their completeness without persistent drill. But drill for the sake of technical skill is one thing; motor expression for the sake of clarifying, strengthening, and assimilating knowledge is another thing. To learn by doing is well enough, if there is no better way; to do, without learning from it, is to drop to the level of the brute, a travesty on pedagogical insight.

The significance of motor expression in the learning process came to consciousness in our schools only a generation ago; indeed, we are only now becoming alive to its place and possibilities. Some got the notion at first that there was a magical charm in the training of hand and eye. Manual training was heralded as the remedy for all defects of vision, mental and physical, and the claim was made that in whittling paper-knives out of wood the boy was really shaping his own character. To follow exactly the specifications of a blue-

print drawing was thought to be the surest way of bringing home the lessons of honesty, sobriety, and truthfulness. Until within ten years, manual training was defended by its over-zealous advocates on the grounds of its value as a mental and moral discipline. It is difficult for us to see, even after the lapse of so few years, why so great worth was imputed to manual dexterity and so little value attached to good reading or legible writing or correct translation. It is past our comprehension even now how any one could have supposed that mere doing could rank in educational value with the doing of something worth while. The fact is, of course, that no one really thought, regardless of what may have been said, that making nothing and making something were one and the same. The early projects in manual training may seem to us trivial, but their value is not to be reckoned in terms of accomplishment, but rather in terms of effort. They represent an effort to secure at any cost the motor expression demanded by child nature. If the teacher of the humanities and the sciences would not employ it intelligently, here was a group of enthusiasts who would use it anyway, unintelligently if necessary. Public opinion, not always a safe pedagogical guide, supported them, and the result is a place in the curriculum for a subject which few know how to teach and which perhaps no one should teach in the way at first proposed.

In supporting the demand for manual training in the industrial and household arts, public opinion outran the educational theorists. Fathers and mothers care relatively little for formal discipline of any kind. They want tangible results. They want their children to be able to read, write, and reckon. Some go so far as to ask for an appreciation of good literature and the fine arts, and a working knowledge of history, civics, and the sciences, but such are always in the minority. The one thing that every parent wants, the one thing that gives him most anxious thought, is how best to make his child self-supporting. In manual training he sees a chance to develop that skill of hand required by the craftsman; in the technical processes he discovers a likeness to the processes with which he is acquainted in the home or in the industrial world. The

study promises material reward and he seizes the chance to turn it to account in the vocational training of his child.

Manual training in some form is here to stay. The teacher needs it in teaching not one subject, but most subjects; the public demands it because it offers the most obvious means of beginning the training for vocational life. Under the combined influence of pedagogical needs and public demands, the content of our manual training courses has been radically changed within the past decade. In the effort to give free expression to the child, all manner of projects have been carried out through hand work. Woolly sheep have sported with polar bears under fir trees set in a desert of sand. Bookbinding and block houses, Indian war bonnets and waterwheels, ink wells and Navajo blankets, bent iron jimcracks and raffia baskets, book shelves and dolls' clothes, broom holders and picture frames—all these and a thousand more mixt up in indescribable confusion! Is it any wonder that some one should raise the cry of fads and frills? The wonder is that any one should try to justify such work in school on any ground other than mere recreation. Absurd as it may seem when one reads over a list of manual projects actually put before our children in school, there has been consistent progress along two lines: (1) in the usableness of the completed article, and (2) in the design and artistic finish given to it. The difficulty of children's making really usable things contrasted with the ease of executing artistic design has largely changed the character of manual training within the past ten years. In fact, manual training today is little more than applied design. In this respect it is quite worth while. It is the best thing that has come into our schools in recent years, and we can not afford to lose it.

Manual training as applied design is a subject quite different from the sloyd and formal projects of twenty years ago. If manual discipline is no longer wanted for itself, one may ask why the term manual training should be retained. Why not combine with drawing and call it all "art" or "applied design"? Another question—Why should we have distinct courses in the household arts in the lower grades of the ele-

mentary schools? The work done in these lines is either applied design or training in the technic of housewifery. This consideration raises another question: What is the place of vocational training in the elementary school?

One characteristic of the American school system is apparently fixt. The work of the first six years of the elementary school is fundamental, the same for all regardless of sex or future occupation. Six years of schooling is the usual legal requirement, and there is a consensus of opinion that specialization should not begin before the twelfth or thirteenth year of age. Some would defer it two years or more, but the number of children leaving school at or before the end of the sixth grade warrants the attempt to make the work of the first six years of the elementary course complete in itself, and as comprehensive as possible. Such a course should be cultural in the best sense, a course calculated to put the child in possession of his inheritance as a human being and fit him to enter upon whatever work may be expected of him in the years immediately following. With six years of good fundamental training, the child is ready at thirteen or fourteen to look forward to his life work. The physiological age suggests differentiation for the sexes. For those who go to college, it is time to begin specialization along academic lines; for those who are to become artizans or farmers or tradesmen, as soon as possible, it is time to begin vocational training. Specialization at the age of twelve to fourteen years should begin gradually, and in the vocational lines it should be essentially preparatory to the later years of trade school or apprentice training. My point is that when the boy or girl hears the call of vocational life, specialization should begin and gradually narrow into technical training for specific occupations—for some at the age of twenty-five in professions; for others at the age of sixteen in the trades. Between these extremes will be found most vocations in which men and women engage. A fundamental course of six years, at once cultural and preparatory to the widest possible range of differentiated courses beginning with the seventh grade, is the chief desideratum of our American school system.

The present curriculum of our public schools, as I have already shown, is chiefly composed of humanistic and scientific subjects. We have made an attempt to introduce certain industrial and household arts, but they are so lacking in coherency as to raise serious doubts of their value as fundamental subjects. Nevertheless, there is another subject of instruction as fundamental as any now contained in the curriculum. If the humanistic studies are essential in the training of the child in his social relations, and the scientific in his relations to the physical world in which he lives, it is equally important that economic studies be included in the curriculum to provide instruction in the industries from which man gains his material possessions. Of course, I do not mean economic studies in the elementary school for the sake of technical training in any industry any more than I advocate the study of poetry in the grades for the training of the poet, or design for the artist, or biology for the physician. I mean the study of industries for the sake of a better perspective on man's achievements in controlling the production, distribution, and consumption of the things which constitute his material wealth. For these he labors his life long; on the use he makes of them depend much of his own happiness and the well-being of his fellows. It is only by means of such studies, whether pursued systematically in schools or picked up under the adverse conditions of after life, that we acquire the basis of judgment concerning the acts and aspirations of our fellow-men, either those who provide the capital for exploiting natural resources or those who do the work required in the several industrial pursuits. In our political life, no knowledge is of more consequence than that which is concerned with the relations of capital and labor; for us as a people there is nothing more to be desired than a sympathetic understanding of the conditions under which men earn their living. Is a liberal education possible in this age without a knowledge of these things which more than all others make men free or leave them slaves?

A threefold division of the curriculum—humanistic, scientific, industrial—has the advantage over the present twofold division not only in providing a more liberal education,

but also in affording a better preparation for the differentiated courses which begin in the grammar school. The training now given in language and literature, and in the arts and sciences of the elementary school, is of prime importance as a preparation for any course that a child may pursue later on; in some respects, no other training can approach it in practical worth even for the work of the lowest grade of trade school. Nevertheless, it is an assured fact that our boys and girls do not enter industrial life with the same confidence that they exhibit in other fields for which their academic training has fitted them. They see no fascination in industrial activity and they have no basis of judgment for choosing any particular career. The fault is largely due to avoidance of industrial instruction in the schools, as something degrading if not positively unclean, and the setting up in its place of unattainable ideals at variance with the actual conditions of society. I would not check the ambition of any American child, however high the goal—it is his birthright as an American citizen—but I would have the school help him define the aim of his life in terms of his own natural endowment and possible attainment. The child has a right to this kind of guidance; the school must give it, and what the school gives must be determined by sympathetic instruction along the lines leading to the goal.

The public, in giving support to manual training and the household arts, undoubtedly intends these subjects to promote closer relationship between the school and vocational life; some teachers of these subjects unquestionably do use them with precisely this intent; but efficient instruction presupposes something definite to teach and a consistent way of teaching it. Subtract from our present manual training course that which is essentially applied design and those exercises which are intended to afford motor expression in the learning of other subjects in the curriculum, and what is left is an incoherent, unorganized series of projects without purposes or educational value. However good the artistic treatment, and however desirable the assistance given in acquiring knowledge of other subjects, the results now obtained contrast most unfavorably

with what might be secured from a series of projects harmoniously organized to attain a specific end and at the same time incidentally to provide for the necessary motor expression and all needful application of artistic design. In other words, motor expression and art training may as well be secured as by-products in doing something worth while as by making them ends in themselves. Whatever value may attach to the subject-matter in such procedure is clear gain. The plan I propose, therefore, is intended to retain all that is of real worth in manual training and at the same time to get something still more to be desired. It is precisely the plan long followed by good teachers of reading and writing. The child in his reading may as well read the best of literature as the poorest, and in writing learn how to express himself clearly, concisely, and in good form as to follow everlastingly a copy-plate.

It may be interjected at this point that some teachers of manual training have used the subject as a means of introducing the child to the complexities of social life, that it has been a means of socializing him, that it has given him a chance to find himself in the midst of a highly artificial and conventional environment. If this be true, and the aim is certainly not an unworthy one, the end may as well be attained by putting the activities proposed on the high plane of real life.

The problem, then, is to organize the information within the industrial field in such a way as to make it valuable, first, in the education of the masses and, second, in technical training for specific vocations. There is no lack of information; what is knowable in any industry is beyond the reach of any one save the most expert specialist, and even he is tantalized by his inability to grasp all within his reach. That a field is large, overwhelmingly large, ought not to deter the educator from entering it. The scientific field, for example, is large, overwhelmingly large, but when it is systematically classified the teacher is in a position to select that which may have educational value even for the youngest child. Without classification it might be possible to teach much of practical value, but the school course from infancy to adult life would present a sorry spectacle. The logical arrangement of scientific in-

formation is the only criterion of the worth of the completed scientific course. The selection of materials for presentation at any particular stage depends upon pedagogical insight which takes into account both the goal to be reached and the peculiarities of the learner. The way in which children learn determines the method of approach to any subject, but it sets no standard of worth upon the acquisition. The only criterion of excellence is to be found within the subject itself in its relations to human needs. How the child learns that 2x2=4 is a problem in psychology; whether 2x2 is actually 4, what relations it bears to other mathematical facts, and whether it is worth learning at all, are problems reaching far beyond child-psychology. In classifying the information within a given field, we establish standards by which we judge the relative worth of component parts and discriminate between what is essential or characteristic, and what is accidental or accessory. Such categories we have in the humanities and the sciences, and they control the trend of instruction thruout the school course. We need such a guide to the industries in order that every step from the kindergarten on to the technical school may fit into our plan for industrial education.

Much confusion in the work of manual training has come from a failure to distinguish between the psychological guide to methods of teaching and organizing subject-matter, and the logical guide to the sequence of topics and the value of the component parts. The need of food, clothing, and shelter, for example, is easily brought home to a child. The psychical reaction to the suggestion that he satisfy these needs for himself is an excellent starting-point for the study of primitive life; it gives a splendid clue to ways of approaching certain fundamental industrial processes, and for that purpose may often be used advantageously in teaching. But to set up this principle as a guide for making courses of study is to confound means and ends. Everything worth having in this life has a place in the gratification of human wants—language and literature, science and fine arts, politics, law, and religion, no less than food, clothing, and shelter. What is suitable food, how it is produced, distributed, and prepared for eating, and what be-

comes of it in nutrition is a subject for study quite apart from the satisfaction of hunger. The need of sustaining life may make the study of great importance, but it suggests no classification of the knowledge abounding in the scientific and industrial processes. Likewise the need of speech for the interchange of ideas gives no clue to the systematic structure of language, to say nothing of the vocabulary and the grammatical characteristics of any particular language. The conclusion, therefore, is that the method of rediscovery of ways and means of satisfying human needs is no sufficient guide either to what children should learn or to the sequence of materials employed in instruction.

The industrial processes by which man acquires his material possessions and shapes them according to his desires, are directed to the transformation of natural resources. Raw materials are produced and worked over; they are distributed and put to use. Each step, if properly taken, adds to their value. What constitutes value and what means are employed to effect the change should be made the subject of instruction. True, the amount of human labor involved is immeasurable, the variety of human occupation almost inconceivable, and the range of productive activity wellnigh beyond our understanding, but the fundamental processes are limited and relatively simple in their operation.

For pedagogical purposes, the materials of most significance in the industries are (1) foods, (2) textiles, (3) woods, (4) metals, and (5) clays and other allied earth materials. Fuels, supplying great industries in themselves, occupy a middle ground between industrial materials and the motive power employed in the industrial arts. Commerce is that industry which uses the products of all other industries in making things available for human consumption. This classification has the advantage of fixing attention on the stuffs out of which things are made and upon which human ingenuity brings to bear its most lavish expenditure of industrial effort. The next step is to single out the dominant processes in the successive stages of production, manufacture, and distribution, and their interrelations, peculiar to each class of materials. The facts concern-

ing these processes constitute the subject-matter of instruction in the industries. The technical skill required in the operation of any industrial process is the object of vocational training.

A well organized course of study in the industries must be the joint work of technical and pedagogical experts. The scientist will be called upon to contribute his share, and his contribution will be no inconsiderable amount. At one stage of the course emphasis may be placed upon the processes of production; at another stage the stress may be upon manufacture, distribution, or consumption. Nature study, agriculture, the fisheries, forestry, and mining will furnish indispensable information. Geography, biology, physics, and chemistry will each add their quota of knowledge. Facilities for transportation, the production and transmission of power, and the agencies of trade and commerce will have a bearing on the problem. But the chief consideration in the course of study is the ordering of the industrial processes by which raw materials are transformed into things of greater value for the satisfaction of human needs.

The simplest industrial processes are often the most primitive. This fact suggests the desirability of sometimes approaching the study in the primary classes from the historical standpoint. To make the study of primitive life, however, the dominant purpose of instruction leads to the introduction of much superfluous material which tends to crowd the curriculum and overburden the child. Wherever the approach can be made advantageously by way of primitive life or by plays and games which express children's emotions, that method may be employed. The impetus gained in this way should be directed to the apprehension of the systematic knowledge contained in the field under consideration. When textile processes, for example, are to be studied, the need of clothing may be emphasized and means suggested for gratifying the want. Projects for carding, spinning, and weaving may be carried out in simple ways and illustrated by reference to actual operations in bygone times or by the practises of contemporaneous primitive people. But to rediscover every step in the original development of these arts is to miss the pur-

pose of industrial education; it may be good industrial history, but it is not good industrial training. The industrial aspects of the study, as distinguished from the historical, require that the child should acquire in some way and at some time—presumably in many ways and at widely separated times—a fairly well-rounded conception of textile processes and become familiar with the most important types of textile products. It is not enough to acquire a knowledge of the primitive process of spinning, even spinning on a wheel, and then to pass on to the weaving of a simple rug. Spinning is an important industry in modern life; it means yarns for all manner of fabrics made from a great variety of raw materials; it means thread of all kinds; it means cordage. How many of our school children, how many adults, have any adequate conception of the extent of these industries or their bearing on everyday life? And yet the processes are simple, and, by actual demonstration, supplemented by illustrations cut from current magazines or by visits to neighboring factories, the lesson can be taught in such a way as to make the learning a delight and the knowledge a permanent possession. On leaving the elementary school, every child should know, it seems to me, the characteristics of cotton, wool, silk, and linen, both in the spun and woven forms, and have some notion of their value as determined by the processes to which they have been subjected. A proper combination of handwork, the application of design and the giving of information should produce the desired results without strain and with constantly increasing interest in the study. At the end of a high school course, possibly at the end of the grammar school, a girl should be able not only to make many articles of clothing, but also to discriminate in the choice of fabrics by reference to what she has learned in school concerning the nature of the several materials and the processes of manufacture. If she doesn't get this knowledge in school, when and where will she ever get it? And isn't it something which she has a right to know? How much time will it take, I ask, to give her a vastly better equipment in this field than ninety per cent. of adults have today? It is less a problem of instruction or school administration, than it is a point of

view and selection of materials for instruction. Once accept my proposition that this is worth doing, and the time can easily be found, and some day we shall have teachers prepared to do the work.

Again, let me illustrate from another field—from the clay industries. Children like to make mud pies. The kindergarten turns this aptitude to good use in fashioning things by hand molding. Of late, primary teachers have adopted clay as a convenient medium for expressing art forms. The result is thirty plaques, thirty ink wells, or thirty vases—all very pretty, decorated and glazed, when put in a row on exhibition day. So far I have no criticism. My complaint is that they stop right there. The chief processes in the clay industries are very few; hand molding, turning on the potter's wheel, pressing into set forms, and building up in permanent shape, as in cement and concrete construction. Why not, then, pass from hand molding, which can be approached thru primitive types, to the use of the potter's wheel? A single demonstration of this machine, with the use of illustrations which may be had in abundance, will give the clue to the entire round of the pottery industries. A few samples, varying from unglazed earthenware to fine china, will complete the teaching equipment. Next come brick and terra-cotta. But who has ever heard of brick-making in school? I should like to hear of it because it is an immense industry, the products of which are visible on every hand—soft brick, hard brick, fire brick, red brick, yellow brick, ornamental brick, terra cotta. Why should not our children know more about these things than we do? I venture to say that ten hours of instruction judiciously spread over two or three years, and properly correlated with nature study and geography, will give to sixth grade children a better appreciation of one of the staple building materials than ninety out of every hundred adults have today. Is it worth the time? If so, the time can be found.

I might illustrate my point by any of the staple foods, by glass, by woods, or by metals. The working up of these materials, the getting them ready for use, does not involve many processes. The combination of processes is most intricate

and the variety of products simply indescribable, but with an eye single to typical ways by which raw materials are transformed it is not impossible to leave with twelve-year-old children a lasting impression of the modes of operation in any industry and the nature of the most important results.

I am well aware that this plan will be criticized by some as being retrogressive, a return to a logical control of childish activities, and by others as abandonment of the new education through motor training. It may mean revolution, but if it results in a richer and more unified curriculum one critic is answered, and if the curriculum is thereby simplified the other critic will get no hearing from the American public. But how is the curriculum strengthened? First, it must be conceded that the content of industrial education, as I have defined it, has some value; whatever that may amount to is a distinct gain. In the second place, the plan calls for richer courses in arithmetic, nature study, and geography. The quantitative measurements of arithmetic will find concrete application in every step of the industrial process from the first step of production of the raw materials to the end of the series when goods are turned to practical use. How much, how many times, how often, in what proportion, at what cost, are questions which must be answered by the child at every turn. The computations called for in the manufacture, transportation, and final distribution of any commodity are in daily use in trade and commerce, and should be the staple requirement of the school. Nothing will vitalize the study of arithmetic more than to create in the school a *need* for quantitative measurement and for the employment of business methods in business affairs. Such a situation suggests clearly the place and scope of commercial training in the upper grades or high school for those who are in training for commercial vocations. The natural distribution of metals, fuels, clays, and other earth materials, the climatic and physiographic conditions which determine the location, amount, character, and availability of our flora and fauna, the factors which control transportation by land and water—these are problems in geography which become concrete and vital in the study of industries. The

correlations are so obvious that only a stupid teacher can miss them. In nature study we shall find a real place for the elements of agriculture and forestry; no longer aimless meandering in any scientific field, but definite attention to those occupations concerned with the production of materials good for food, clothing, and shelter, the conditions calculated to give best results, and the resistance which men meet in doing their work. The growing of any crop, even in a window garden, will epitomize the farmer's labors in tilling the soil, supplying plant food, utilizing light, heat, and air, overcoming disease and insect pests, and reaping his harvest. Every step takes on new meaning when the learner sees its place in the series of operations culminating in the commercial food supply of his own community, its sanitary regulation and domestic consumption. The elements of physiology and hygiene, and of physics and chemistry, are also called into requisition; they are all indispensable in fixing values of industrial products and determining economy in technical operation. What makes for hygienic living is as well worth knowing from the economic standpoint as what mechanical appliance will most increase the output. A proper study of the industries, therefore, I contend, will bring about a unified and closely correlated course in the biological and physical sciences by way of supplying the information wanted by the child in adjusting himself to the real world.

Perhaps some timorous soul will interpret my outline of the pedagogical relations between the sciences and the industries as a denial of any independence to arithmetic, nature study, and geography. Far from it. The scientific subjects have a function of their own in the curriculum, as do the humanities and the industries. The use of language and the arts of reading and writing in studying the industries, even the generous use of supplementary readings giving industrial information, does not preclude the study of literature in progressively systematic form. The course of study in every subject may have two aspects, one peculiar to itself by virtue of which we recognize it as a distinct subject, the other relative to other subjects which the child may be learning. In arithmetic, that which is

peculiarly mathematical looks forward to the systematic development of the science of mathematics, and it is possible so to emphasize this aspect as to make the study almost exclusively formal. The natural sciences may be so taught as to have no direct bearing on the child's experience. My thought is that any subject worthy of a place in the school curriculum should be developed along systematic lines characteristic of the subject itself by means which function in the child's experience with other subjects of information. This is only another way of saying that whatever is learned should be applied in practise. Perhaps better said, it is the harmonious interaction of all subjects in the curriculum which gives zest to study, solidarity in the knowledge acquired, and efficiency in converting knowledge into power. The reason for this is that the learning process is a unity; the child's experience in gathering information from many sources is unified, and it is his own; his instincts, impulses, and all his activities belong to him alone, and however segregated the ultimate ends of his endeavor may be in the mind of his teacher, he weaves all his experiences into the fabric of his own life. Whether or no that fabric be technically correct depends upon the systematic ordering of his experiences; its serviceableness for any particular purpose depends upon the materials which have entered into it.

One other important question awaits an answer. Will the plan I have proposed tend to simplify the curriculum? My answer is that at least four subjects will be combined into one, and in some elementary schools one teacher will take the place of four. Manual training, fine arts, domestic art, and domestic science will drop out below the seventh grade, and in their place we shall have the one subject of industrial arts, the elements of industries. The term "manual training," if used at all, will cover the forms of motor expression employed in teaching reading, writing, and drawing, as well as the manual exercises used in agriculture or weaving or pottery making or carpentry. There will be no hours set apart in the school program for work *exclusively* with the hands, and teachers will not be expected to provide manual occupations for every minute of the time assigned to any subject. When manual work

is needed it will be demanded as insistently and employed as successfully in the humanities and the sciences as in the industries. In the lower school, manual exercises will be used as a means of self-expression, a method of teaching rather than a subject of instruction or a way of acquiring technical skill. That is, cooking in the lower school is to enable the child to know what happens when heat is applied to foods, and in what respects foods thereby are made more serviceable; cooking as an art in which a girl should excel belongs to a later period when she is fitting herself for housekeeping. Technical skill is a distinct aim in vocational training, but in the earlier years of school the purpose is general rather than specific, cultural rather than vocational.

In all industrial processes, wherever man transforms materials into things of greater value, he employs a technic peculiar to the situation, and gives to the product a touch which pleases his esthetic sense. Earthen bowls might be made, I suppose, without appreciable artistic merit, but the fact is, that the crudest pottery shows an effort to attain some ideal standard. This striving for artistic effect is as instinctive in childhood as in primitive man, and no worker ever loses it until he loses all pride in his handiwork. It is the source of every fine art. It is self-expression, which is at its best when bodied forth in doing things worth doing well. The teacher of art, therefore, finds his best opportunity in that field which offers greatest inducement to constructive design. The art training which belongs in the elementary school is that training which makes for a better appreciation of esthetic standards and which finds expression in making things more pleasing than they otherwise would be. It adds no burden to the curriculum; on the contrary, it enlivens it and makes its tasks more pleasurable because more gratifying to personal wants.

A systematic course in the industries will have the additional advantage of making it easier to teach everything else in the curriculum. Not only will the study of industrial processes give rise to concrete problems in mathematics and the natural sciences, but the practical character of such problems will incite children to find the surest and most business-like way of solving them. Time will be saved for drill in every

other line. With fewer subjects and more practical problems, I should confidently expect better results in the three Rs and a more thoro discipline resulting from work in every subject. There would be no attempt to cover the whole field of human effort; the standard set in the study of industries whereby only the essential processes should be included in the course of study would react upon the courses of study in the humanities and the sciences. Let it be agreed that only fundamentals have a place in the elementary curriculum, and it will be comparatively easy to insist upon thoro work. Under such conditions there can be no excuse for not getting it. Those who believe, as I do, in the educational value of work well done, will join hands right here with those who advocate a curriculum which imposes tasks worth doing well.

My conclusion is that industrial education is essential to the social and political well-being of a democracy. It is the privilege of all, rather than the duty of a few, to be informed on matters affecting the social welfare of the body politic. A knowledge of how men get a living, the nature of their work, and the value of it, is a prerequisite to intelligent appreciation of the dignity of labor. A sympathetic understanding of the conditions underlying industrial competition will make for civil order and social stability. Training for citizenship may not safely disregard the dominant interests of the great majority of citizens. The public school must teach that which all should know. If only six years can be had for this work, the work must be done in six years. There is no alternative. It must be done in such a way, too, that children will grasp its significance and carry its impressions thruout their lives. It must establish such habits of thought and conduct that all subsequent work will be aided by the discipline. This is the ideal of the elementary school. Joined with the humanities and the sciences, a study of the industries rounds out the education of the citizen and equips him to begin his vocational training. On the threshold of active life it puts him on a par with his fellows. It assures him that kind of equality which is the opportunity of every American.

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II

HIGHER EDUCATION AND THE FARM

How may higher institutions of learning train for farm life rather than away from it? In order to deal intelligently with this question it is necessary to secure direct information from original sources. The following questionnaire was addrest to fifty students, equally distributed among the four academic classes at the University of North Dakota:

(1) Why did you leave the farm?
(2) Do you expect to engage in farming after completing your university course? Why?
(3) What conditions in farm life should be improved in order to make the occupation attractive to you? How?
(4) How can the university aid in training students of initiative for farm life?

Essentially the same questions were submitted to several educated and progressive farmers, to the heads of the various higher institutions of learning in North Dakota, to the United States Secretary of Agriculture, Mr. Wilson, and to the Chairman of the National Committee on Country Life, Mr. Bailey.

The answers to the first question, "Why did you leave the farm?" are very effective denials of the implied indictment that higher institutions of learning are training away from farm life. The reasons assigned for leaving the farm indicated a well established purpose on the part of each respondent to leave the farm for all time when he or she entered the University. In the light of such evidence the indictment is proven false, and the interrogation, "How may higher institutions of learning train for farm life?" may be given exclusive attention.

An examination of the answers returned furnishes interesting information regarding the actual conditions existing on

the farms in North Dakota. An actual statement of conditions is not made, in every case, but the declaration of ideals entertained by the students coming from the farms leads to a clearer conception of the conditions existing in their rural homes than might be gained from their statement of facts which they would willingly discuss. The following answers to the question "Why did you leave the farm?" are given in the order of their numerical importance:—

To obtain an education.
To secure greater financial returns.
To seek a higher and more honorable profession.
To move among cultured men.
To become honored and respected.
Because farming offers no future to an educated man.
Because farming offers no prospect for fame.
To escape drudgery.
To enjoy social life.
Because parents moved to town.
Because father wants his son to be a professional man and not follow the humdrum life of the farmer.
Because two thirds of the year there is practically nothing to do.
Because land is being robbed and overrun with weeds.
Because I wish to secure more liberty and enjoyment.
Because farm life offers no regular income.
Because I prefer mental to physical labor.
Because farm life lacks amusement and is too quiet.

Subsequent to taking this census of students in North Dakota it was learned that Professor Bailey of Cornell had taken a similar but larger census at Cornell University. He received replies from 155 students. He placed their answers in four groups:

First, those who were influenced by financial reward.
Second, those who left the farm because of the burdens of physical labor.
Third, those who wished to improve social and intellectual ideals.
Fourth, those who were handicapped in miscellaneous ways.

A comparison of the answers from the students in the University of North Dakota and Cornell University leads to the conclusion that the eastern and western students were influenced practically by the same motives, and had been led

to the same definite determination to abandon the farm before they had come under the actual influence of the institution which they entered.

The answers to the second question, "Do you expect to return to the farm after you have completed the University course? Why?" elicited two sets of answers. The answers are given in the order of their numerical importance, though several of the latter reasons are assigned by a single respondent. Group one, those who do not expect to return to the farm:

Specialized for other work.
Not attractive, especially for a girl.
Prefer mental to physical work.
Farming does not pay enough money.
Farming is too prosy. It lacks amusement and opportunities for social life.
Social standards in rural communities are inferior to those of town.
Farmers have no opportunity to travel.
Extreme hard work and uncongenial neighbors.
Farming is too humble a profession.
Education is regarded as a menace to a good farmer.
Educated people do not live on the farm.
Ashamed to go back to farming and settle down as a farmer.
Because education in higher institutions of learning does not fit for farm life.

Group two, those who expect to return to the farm:

Life on the farm is sane, moderate, healthful, varied, and reasonably remunerative.
More freedom and the trained mind is offered a field of wider interest than in the city.
Because farming requires brains and education.
Business too intense in the city.
Physical conditions more satisfactory on the farm than in town.
Farmers are usually reasonably successful financially, whereas the majority of business men fail.
University education has given entirely different and higher ideals of farming than those possest when I entered the university.

As might be expected from any company of witnesses, the two groups of answers cited furnish some rather striking contradictions. One of the most interesting facts developed is that showing that higher education in an institution, with no agricultural college in its organization, exercises a positive in-

fluence in creating ideals *favorable* to the return of educated men and women to farm life.

The answers to the third question, "What conditions in farm life should be improved in order to make the occupation attractive to you? How?" received the following replies:

Good roads should be built thru the country.
General telephone connections should be established.
Rural mail routes extended and parcels post system inaugurated.
Rural schools should be improved.
More attention given to the social and religious life.
Higher grade of labor should be secured.
Farming should be made more profitable.
Drudgery should be reduced by the use of more machinery.
Farming should be intensified and diversified.
Farm buildings should be improved and made more artistic.
Standards of life should be changed so that everything would not be measured in grain and cattle.
Shorter hours for labor with the hands and longer hours for work with the brain.

The fourth question "How can the university aid in training students of initiative for farm life?" received the following answers:

Offer a good cultural as well as practical education.
Use every means to develop character.
Endeavor to uplift and dignify the ideals of farm life by means of convocation addresses, classroom work, and general lectures.
Offer courses in manual training, and teach students to work with the hands as well as with the brain.
Join the Agricultural College with the University on the same campus and let each work for the other.
Offer courses in chemistry and physics of the soil, applied courses in zoology, botany, geology, and engineering.
Offer courses in business management of the farm, in economics of production, and in beautification of rural homes, grounds, etc.

Answers from the heads of institutions of learning in North Dakota, and from farmers and others, with whom correspondence was had, closely agreed with responses received from the student body. The consensus of opinion might be summarized in the following manner: There is much that is faulty in rural conditions, notably uncongenial surroundings, lack of social and religious educational advantages, a general apathy among many farmers in regard to improving local con-

ditions; and there is a common ambition to move toward and mingle with the more active urban life. The search for the underlying cause of these difficulties leads to the conclusion that there are two primary difficulties at the source of this sociological problem. Ideals concerning farm life, as well as unfavorable conditions, must be changed if there is to be any considerable decrease in the drift from country to town. We may deprecate the low ideals of farm life, entertained by so-called people of culture and refinement, but they do not have as injurious an effect in driving young people away from the farm as do the low, undignified ideals possest by many farmers themselves. Undoubtedly much may be done by creating proper ideals in the minds of those who have left the farm, but the institutions of learning must get nearer the "load," which is anchored in the farm homes. Much energy will be economized in the endeavor to train for farm life when educators grasp the idea that adults are in greater need, even, than the children of acquiring correct ideals. Unquestionably it is because of the low, impoverished, and undignified ideals obtaining in so many rural homes that the youth grown, not reared, in the country, trek toward the congested centers of society.

Mr. S. A. Knapp, director of the Farmers' Cooperative Demonstration Division of the Department of Agriculture, from observation and experience speaks as follows:

"The teaching of ideals on the farms, in the workshops, and in the homes of toil is the most valuable and significant of all the varied lines of educational work because it has in the past been most neglected. It is the most valuable because the lessons are immediately practicable and become at once an investment for human betterment; while much of the teaching of youth is lost by indirection or lack of application. Its value is enhanced because it goes directly to the improvement of home conditions which generally largely fix the character of adult society and mold the rising generation . . . It will be difficult, if not impossible, to fix as national characteristics those high standards of excellence worthy of a great people, unless education and training be taken to the adult

population as well as to the youth. However excellent and complete may be the instruction of youth in the schools, parental authority and home environment, if of a lower level, will ultimately determine the standards of the future. The education of the adult should keep step with that for children and youth so that there may be the material prosperity and intellectual growth coordinate with developing childhood under the guidance of a wise instructor to the end that the natural leadership of the parent may continue unbroken."

Manifestly the higher institutions of learning can perform this service of reaching the adults directly thru one avenue only and that is thru correspondence and University extension work, one of the greatest, if not the greatest arm of any institution of learning. It is a work which would justify liberal appropriations by both State and Federal governments. That the organization and training of a large army of extension workers would carry the results and the inspiration of culture and modern scientific findings to the homes of millions of farmers is no empty dream. In the desolate rural homes of millions of American farmers are "lonely women, untrained or mistrained children, and dull, plodding men." For such as these the extension workers must be multiplied until the call to the higher life is brought to the very thresholds of thousands of American farmers' homes.

A boasted motto of our land is "the common school, the hope of our country." By reason of its intimate relation to the home life of the community it is very close to the "load" and may be used more effectively than in the past for establishing correct and high ideals of rural life, and pointing the way to the correction of many unfortunate rural conditions. To perform this function adequately it will be necessary that teachers in the elementary schools be trained in elementary agriculture, domestic science, and manual training. Obviously this is the great sphere of normal schools, and any other schools whose efforts are given to training teachers for service in the elementary schools. This may be classed as indirect effort on the part of the higher institutions of learning to solve the problem of training for farm life.

Another point of indirect attack will be thru cooperation with high schools, high schools that are now established or agricultural high schools such as are contemplated in the Davis bill. The relationship of such schools is clearly indicated in the following words from President Roosevelt: "It is not my place to speak of the details of such a bill as the Davis bill, but in a general way I feel that the nation should be making appropriations, put a premium upon industrial, and especially agricultural, training in the State schools; the States themselves being required in these schools to contribute what is necessary in the ordinary training, and the expenditures for the National Government to be under the supervision of the Department of Agriculture.

"Teachers must be trained, or their teaching will not be adequate, and these teachers must then give vocational training to the scholars in the ordinary schools. The nation would simply cooperate with the State or city or town, and what it thus gives would be applied to industrial, technical, and agricultural trainings.

"We have to deal now and we will have to deal in the future with a nation of families on the land, and our system of public education should be so broadened in its scope as to include not merely the traditional cultural studies, excellent and indispensable in their way, but also instructions relative to the farm, the trades, and the home."

To fulfil their proper functions these high schools will require large numbers of well equipped teachers of advanced agriculture, domestic science, and manual training. The preparation of such teachers should be as thoro and extensive as that of engineers, lawyers, and physicians. The demand for teachers thus prepared will far surpass at an early date the supply afforded by agricultural colleges, and there is every reason, therefore, why every teachers' college in the United States should offer thoro and extensive courses in these subjects.

The departments of engineering and botany may be used to indicate two of the many other avenues of indirect attack suggested by respondents to the question "How can our uni-

versities aid in training students of initiative for farm life?" The scarcity of skilled labor on the farms, together with the abnormally high prices demanded by inefficient laborers, is sure to have one beneficent effect. It will require the farmer to make larger use of machinery and thus enable one man to perform the work of several. This implies that the farmer and the mechanic will be closely related, so much so that every successful farmer must necessarily have his blacksmith shop and his tools for repairing farm machinery under his own management. The day is not far distant when the milking machine, the gasoline engine, and allied appliances will minimize the drudgery both in and out of doors, and thus relieve the farmer of many of the most disagreeable features of rural life. In this connection higher institutions of learning will find favorable opportunity for giving courses in shop work, machine construction and operation, directly related to agricultural as well as engineering demands.

Mr. Burbank has made many notable contributions to our generation, but perhaps we are most indebted to him, not for his seedless plums, shell-less walnuts, and spineless cactuses, but rather for the great lesson which he has taught us in breeding plants. One of the most classical experiments based upon principles followed by Burbank, is the development of new breeds of corn by the Illinois Experimental Station. Another is the notable work of Professor Hansen of the Agricultural College of South Dakota, who has made remarkable advance in the breeding of plants which will endure the rigors of the severe northern climate. These lessons in plant selection and breeding appeal directly to the progressive farmer everywhere. The higher institutions of learning, thru their experimental studies with plants, should be able to make helpful contributions to the training of those who have inclinations toward the farm.

In the study of prairie conditions, higher institutions of learning should become powerful agents in creating a sentiment for groves and forests, giving thoro and practical courses in the study of trees, and demonstrating thru their own home-grown groves what may be done along the roadsides and on every

quarter-section of land. When actual work in selecting and cultivating trees, which may yield net returns of five to twenty dollars per acre, on a twenty-year investment, is carried on by higher institutions of learning opportunity will be afforded teachers to gain a practical acquaintance with tree culture. With people thus prepared Arbor Day will become an institution whose monument in America will be something beside dried-up toothpicks, which are the only suggestions of tree culture on the grounds of many rural schools.

It is believed thru these three agencies, University extension, preparation of teachers for elementary schools, preparation of teachers for secondary schools, the higher institutions of learning may aid in training for a true life on the farm. This training, it must be remembered, will be directed toward the development of proper ideals respecting country life, and toward the improvement of unfavorable conditions, which absolutely prevent rural progress in many communities at present.

Viewed from almost any angle, this subject is one of colossal proportions. There is no business in all the world that is so important as agriculture. There is none that begins to compare with this in the amount of invested capital, about thirty billions of dollars in the United States. None which can compare with it in total production of wealth, which was about seven and one-half billions of dollars in 1908. There is no business which is so hampered by traditions and weighted by such an army of ignorant employees. The problem is further complicated by the fact that over thirty-five per cent. of the farmers in the United States in 1900 were tenants. This means much careless and indifferent farming, and consequently more drifting away from the farm to city life on the part of the boys and girls, who feel that they can sell their services for higher wages. In the light of these statistics, there is a great field for the economist and the sociologist who may develop sane and wise economics of consumption of farm resources. If these departments in our higher institutions of learning can devise systems of taxation and systems of credit, which will relieve the toiler on the farm from the

burdens of taxation on the one hand, and the high rates of interest on the other, they will make a great contribution to the training for farm life.

It should be understood that this discussion is not a plea for converting higher institutions of learning into agricultural colleges. It is a simple effort to show how higher institutions of learning may make use of their present equipment for benefiting a class of citizens who contribute largely to the maintenance of every State institution. It is a frank acknowledgment that one of the most difficult questions in education has been long neglected by America's higher institutions of learning. The intention has been to point out facts concerning some of the unfavorable and some of the favorable factors of rural life; and at the same time show how we might get nearer the "load" thru the agency of extension work, and preparation of teachers, who may carry inspiration and knowledge of rural affairs into successful teaching in the elementary and high schools; and also how the departments of economics, engineering, sociology, biology, and others may be utilized for practical service in agricultural as well as in other technical activities. When the farm and the school become thus allied, we feel that the question of this paper will have been successfully answered. Under this alliance we should realize a social and economic condition in the rural community which would approach the Utopian. Then we should see fulfilled the prophecy of one of my respondents, "the farmer will become greater than his vocation, and farm life will be attractive to the best class of citizens." Nevertheless, then, as now, young people of initiative will leave the farm occasionally, as they now leave every profession and activity, for service in other spheres of life. But they will sacrifice much in so doing, because they will leave sanitary, architecturally constructed homes of culture, surrounded by the quiet of country life.

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III

THE DIVIDING LINE BETWEEN SECONDARY AND ELEMENTARY SCHOOLS [1]

Historically the school has grown out of many needs that society has felt, but probably two of these have been especially important factors. One is the necessity felt by any social group to protect itself against innovators in order that it may preserve the treasures which have come to it from the success due to social organization. War, a protective tariff, restriction of immigration, and a host of other means have been used more or less effectively to accomplish this end. But very early it was found that one class of innovators required especial care in order to prevent its making serious inroads upon what were presumably valuable customs. The innovators of this class were the children born into a group. They have had a great influence in modifying language and other social institutions, and the means used to train them to uniformity, and thereby gain security, has been the school.

On the other hand as man, thru organization, secured a certain amount of leisure and surplus, he felt called upon to invest this, and investment involves some degree of risk. To look after these investments of the margin of life a professional class arose which called for special training and another form of school came into existence.

It is not wise to press this abstraction of factors too far but, in a general way, from these two situations we have derived our elementary and secondary forms of schooling. In so far as the privileged classes have considered that children require a period of restraint before entering into the freedom of life, based on derived material, certain elements

[1] Paper read before the Round Table of Southwestern Michigan at Grand Rapids, March 12, 1909.

of elementary education have been used by them. In so far as the democratic movement has brought the common people to a share in social accumulations and savings, elementary education has been extended, in many cases very artificially, into the secondary field.

In the older countries this division of the school has been and is a matter of social classes. It was found that the professional class must be recruited from the industrial, and provision was made of opportunities for abler boys from the working class to have secondary and higher schooling, but this meant their adoption into the higher class. To a great extent our schools and social settlements in America now serve as recruiting stations, by means of which we pick out bright students to "go on farther" in school in order to enter the social groups which have already become professionalized. In Germany today the Emperor's interest in continuation schools seems to be largely based upon what seems to him to be a necessity in continuing state control over the working people until they have past the period of plasticity, and by means of industrial and military education have been conformed to existing conditions sufficiently to save them from following those to him apostles of discontent and innovation, the Social Democrats.

In America, in so far as this stratification exists, the secondary school for persons of privilege is a private institution, but in many sections the dualism upon this basis is increasing. In general, the private school is an accompaniment of increased financial resources.

In the schools of our municipalities, circumstances have led to a bringing together into one institution these two divergent forms of the school. Our emphasis upon industrial needs and our lack of surplus has given the priority to the elementary type, and gradually from this has grown a secondary form, the high school, which has replaced to a great extent the old grammar school and academy, which were frankly taken from European models. As a result we have had a secondary school of shorter term and more practical working than have been those developed more independently of the needs of so large

a proportion of society. The placing of the support of this division of the school directly upon all the people (for indirectly it has always been there and consequently with the people's consent) has been well established, notably in the Kalamazoo high school case. The fact of this consent, however much contested, marks the extent to which an increasing proportion of the vocations and occupations have become professionalized and consequently freed from some of the limitations of that state in which they were before they developed a professional function. This is not the place to attempt to state the forces which are bringing this about, but no adequate discussion will fail to include the results of such physical and social machines as engines, dynamos, corporations, labor unions, etc., by means of which power has been controlled and utilized as never before.

The industrial education controversies of the present day illustrate fairly well the push and pull of the two factors which I have attempted to emphasize. The classes of greater privilege are urging insistence upon the elementary form for the workers, while the organizations which represent the less privileged oppose any shortening of the period of participation in that secondary schooling which initiates its members into a life of progress and advancement.

The call for the enrichment of the grammar school course, which has now taken form in the plan for a six-year high school, is a natural outgrowth of democratic tendencies, and should be interpreted in relation to them. We no longer hold to slavery as a necessary foundation for the leisure so important to Aristotle. Our social organization has changed sufficiently the ratio between subsistence, production, and consumption as to make the old basis indefensible. The problem today is to what extent has society gained control of the situation, and what degree of participation can be claimed by all classes?

I believe that progress lies in the increasing professionalization of all classes of workers and that our American school is the most promising type, because it permits a greater adaptation to the needs that arise with this advance. After

a somewhat careful study of the various forms of the school found in Germany, I was asked by a German to state my feeling regarding the situation in the two countries. I said that, in continuation schools, Germany excels, just as America has the advantage in its elementary schools. The reason in both cases is the same—the better type includes an interaction of the two ideals. The German Fortbildungsschule, better than any other, prepares for existing and changing conditions, and in its best development points the way to responsibility for making changes. The American elementary school more than any other recognizes growth and progress, as well as adaptation on the part of children. When it comes to the secondary division, evaluation must depend upon the growth of the next few years. The German has the advantage of better habits—the American of less necessary waste in change, for he has less to lose.

Assuming that the task of America in the present generation is to reconstruct its system so as to better adjust the balance between the two factors which must be taken into account, it would seem that we must have, in a democratic community, an organization which does not segregate or stratify. We can not hope to have men choose for their children a life of less privilege as long as there is a chance for them in what are accounted higher classes. Yet there has been an extension of the area of privilege, and we can hope, in time, for still wider ranges of occupations, from which choice can be made, and entrance into which does not debar the worker from growth and advancement.

To meet these needs we require a school system which furnishes to the various ages such situations as will bring about a freeing of the energy which the individual has stored up in the coordinations which we call instincts and habits. Just so far as society can afford to do so, and see its way to bring it about, we desire to have our young people rise to higher planes of development, at the same time organizing and freeing more occupations, so that there will be a wider range of choice.

This will necessitate a greater variety of secondary school

courses, including all desirable forms of adjustment between preparation for the present, and keeping open for future growth. The conditions call for trade instruction and for preparation for college. Our mistake will be in segregating the types and thus contributing to undesirable class stratification. Our progress lies in giving to each individual the best balance possible under existing circumstances, in meeting both his needs of today and his growth for tomorrow. Each person will have these adjusted in a different ratio from that of others—what will be the major of one will be another's minor, but the school can not afford to forget that each student has both needs.

This will require courses of various lengths. At present some will not continue beyond fourteen, but our most advanced States will soon transcend that requirement in at least part time schooling. We must find means by which the boy and girl in the adolescent period will not be shut off from production entirely in order to give his allegiance to the school. It will not be easy but it will be profitable to have courses in city schools which close their full-time requirements at fourteen, fifteen, sixteen, and on up to twenty.

The movement, on the whole, has been toward greater unity in our entire school system, and each advance accomplished makes others easier to bring about. For administrative purposes we have continued, long beyond any justification for it, the division upon the basis of four years. The result has been an elementary school of six grades and a high school of four grades, with a *terra incognita* in between, attached to the former. We have recognized, more or less vaguely, that, with the seventh grade, a new range of problems opens up. It is a hard year. In some cities the seventh and eighth grades call for special teachers at large salaries. Our loose and careless grading has established a sliding scale which often obscures the real differences, but the teacher who is called upon to meet the needs of "old" and "young" seventh graders at the same time deserves our sympathy.

Physical and psychical development proceeds in rhythmical form, the beat is one, two, three; one, two, three; one, two,

three. Just as we eat a meal and then digest and assimilate it, so children grow rapidly for a time and then stop to gain control over their accumulations. From the ages of one to six there is a period in which interests, activities, and virtues are very different from what they are from seven to twelve. The age of eleven is an important halting place. The tremendous increase of growth after six has been followed by a time of hesitancy and uncertainty, which settles down into a most astonishing assimilation of a wide range of material. At eleven, boys and girls, bright and dull, are more nearly alike than at any other time. It seems to be Nature's rendezvous for evening up accounts of all kinds before the new life begins after twelve. The stage from one to six has a major in the home; from six to twelve, the school comes in as an important secondary factor. I do not believe in sharp demarcations but, generally speaking, these periods have their distinctive features.

No less is this the case with the third period, beginning about thirteen, when I believe that the two institutions, home and school, no longer suffice but require the cooperation of civil and industrial society. The parent and the teacher are no longer sufficient. Their work is none the less essential, but at the best it is not adequate unless reenforced by a representative of the larger world. We had him in the past in the master to whom the boy was apprenticed, but this was done at the sacrifice of the work of the parent and teacher. We have tried to reinstate him, with only partial success, in the manual training teacher, the athletic coach, the social secretary, etc. Our failure has been in not recognizing the function that is needed and meeting it consciously and rationally.

In a recent letter, an able critic of one of our educators said to me, "I agree that the failure was due to administrative difficulties, but are not all our failures due to administrative difficulties?" The division of the school at the beginning of the adolescent period, rather than a little later, is a matter of administration, but it is one of the adjustments which will aid our school machinery to greater effectiveness. The particular subject-matter at this age is not so important as the

type of situations organized. The entire curriculum needs enrichment and reconstruction, the departmental organization has a place in the lower school, the class teacher has a function in the high school as well as below, shops and laboratories are not useful in higher classes alone, but all these aids are rendered effective to the extent that we pay attention to the stage of development the boys and girls have reached.

It is not a device for bringing the burden of college entrance upon younger shoulders, nor even for bringing Latin and algebra into school rations at an earlier age. Yet even the present formal course presented in some high schools will be somewhat more rational when a longer swing is taken, and we shall find that normal children, whom we still smother in applications of percentage, will respond much better to the higher mathematics which their English cousins are studying at the same age. As Greek and Latin recede farther into the background, we shall see that the extended secondary course in English must include relations to other languages, without which we have our frequent provincial helplessness in high school graduates. Experience has shown that laboratory methods have especial value at this seventh-eighth grade age. The new courses in science, worked out in Springfield, Oak Park, and elsewhere for the ninth grade, will be even more effective a year earlier. We may not hope for the expenditure required to make possible the more substantial work needed in these first years of the new life unless we take advantage of the start already made in high school equipment.

Of the few arguments made against this arrangement there is one which has some weight. It is that we do not have the teachers who are able and ready to do what is needed. I have visited recently the headquarters of one of our great engineering firms, where ten millions' worth of work is under hand. Our most effective school organization is far behind what they have worked out. They do not lack for money because they show unmistakably that they know how to use it. I am proud of the social engineering that is under way in our city schools and institutions for training teachers, but we all know that it is far from adequate and that every

demonstration of its efficiency makes funds more available and expert teachers more possible.

The six-year scheme is only an incident in the growth of the school. Its main significance is in the fact that it shows recognition of social and psychical conditions, which must be better understood in order to be used. What we need most is the careful study of local problems and the meeting of the needs they present in the light of the best experience available.

FRANK A. MANNY

KALAMAZOO, MICH.

IV

THE GENIUS OF THE AMERICAN HIGH SCHOOL (II) [1]

III. COEDUCATION OF THE SEXES

Section 1. The Status

The term coeducation has many meanings and uses: in describing the actual state of our schools in this respect we call attention to three great elements, the latter two of which are commonly denoted by the term coeducation; these are the mingling of the sexes in the same school and the same classes, and the provision of identical courses and instruction for both boys and girls. The first point to be discust is one which is not usually considered as a part of coeducation, but which must be taken into account as being really the underlying motive and chief determinant of all other conditions in the problem: this is the doctrine and practise of equivalent educational rights and opportunity for the two sexes. We turn now to a consideration of this principle.

1. Equality of educational rights and opportunity.

Here again we encounter a distinguishing characteristic of American education in general, and of our secondary schools in particular. There is no parallel in history, nor in other school systems of the present day, to the complete recognition given in the United States to the right of women to education above the elementary school. With us this right is in no way matter of debate; it is taken for granted in all discussion and embodied in practise. In Europe, theory is beginning to acknowledge it, but practise is infinitely in the rear, and is being dragged along slowly against obstinate and determined opposition. Nevertheless every one of the great nations of western

[1] The first article on this topic appeared in the EDUCATIONAL REVIEW for January, 1909.

Europe is laboring to equalize the educational opportunities of the two sexes; it would seem that England is in the lead in this movement, followed closely by France, and afar off by Germany.[2] The backwardness of Germany in this respect is vividly seen in the fact that, out of 45,136 university students in 1906-7, only 254 were women,—one in 178; in the United States, out of 149,700 students, 53,125 were women,—more than one in three.[3]

This principle and practise of equivalent rights and equivalent opportunities for girls is one of the most important data in our educational problem. The principle did not obtain from the beginning, but was gradually established in the course of the first half of the Nineteenth Century. Many interesting data and incidents in the movement may be gleaned from Dr. Brown's *Making of our middle schools.*[4] But, while the principle is established immovably in our educational system, the details of its realization and the results of its operation are giving rise to much discussion and no little perplexity. Two of the most important problems are those still to be discust in this section of our paper, the questions of identical curriculums and mixt schools. One other very serious problem in our educational situation is closely related, the great preponderance of women in our teaching force. A word on this point may be in place here.

Doubtless, it will be said that there is no necessary connection between equality of the sexes in educational opportunity and the feminization of the educational army. Passing this without argument, it must be clear that, without the present large opportunity for the education of women, the preponderance of women teachers would be impossible. Furthermore, no one who is familiar with the motives and ambitions of the young women in high schools and colleges can ignore the fact that they are very generally imbued, more or less consciously, with the idea of profiting financially from the outlay involved in higher education, and in the great majority can look only to teaching for returns. Normal schools and de-

[2] *Report of the Commissioner of Education*, 1907, p. 101, 156, 183.

[3] *Report of the Commissioner of Education*, 1907, p. 184, 750.

[4] See especially p. 250-255.

partments of pedagogy can testify overwhelmingly on this point. Most of our educational experts, and especially the most serious and competent of them, look with profound apprehension upon the situation. We have in our schools seventy-seven women to every twenty-three men, more than three to one. Only one European country surpasses us, Portugal, with eighty-eight per cent. of women; next comes England with seventy-one per cent., and last of all Germany, with only a fraction over fifteen per cent.[5]

The most serious part of this situation is generally felt to be the preponderance of women teachers in high schools. Most would agree that the primary grades are best committed to the care of women, and that the grammar grades might well have a large proportion of women teachers, but that when the high school age is reached, the boys especially, and probably the girls also, need instruction and discipline from men. In Europe it is common enough to see girls, even in the elementary period, and in schools exclusively for girls, under the instruction of men; but never boys of high school age taught by women. Indeed, so extraordinary is our practise in this regard that it may seem a strange omission in the present article not to designate the preponderance of women teachers for boys as one of the conspicuous elements in the very genius of the American high school. The only justification for the omission is the belief,—possibly born mainly of the desire to think so,—that the feature is rather an incident, or even an accident, and not at all of the essence of the institution; and with this goes the hope that the fault may be eradicated and the institution left not less, but more, itself. In any case we may all agree that the condition in question is one of the most serious elements in the whole high school problem.

2. Mingling of the sexes in schools.

It is easy for us Americans, especially for the large number who have attended coeducational secondary and higher schools, to forget that the mingling of the two sexes in the secondary and college periods is not the accepted and established tra-

[5] *Report of the Commissioner of Education*, 1907, p. 171, 555.

dition but the new and extraordinary. The fact is, of course, that there is not and never has been any other great system of schools for youth in which boys and girls were taught together. The history of education presents a few theorists,—among them Plato himself,—who advocate what is now known as coeducation, in various forms and degrees, Plato being the most extreme of all and going far enough to shock the most ardent modern advocate of the plan.[6] Indeed, so unqualified is his denial of qualitative differences between the sexes, both in nature and in function, and hence in the training required for both, that one is almost forced to think that the great philosopher is laughing at us in the quiet inscrutable humor he often affects. A serious and more feasible conception is found in an interesting fragment from the Roman Musonius, writing in the latter half of the first century A.D.[7] Some occasional and sporadic cases there are of actual schooling of boys and girls together in the secondary period, but so few and disconnected that they have hardly left a trace in history. The almost universal plan has been unisexual schools; and both individual schools and systems of schools of this type occupy a large place in the history of actual school education.

A survey of European schools at the present time shows the separate school almost entirely in possession of the secondary field. Coeducation is quite unknown in the higher schools of Germany and France; in England all the older schools above elementary grade are separate, including the historic public schools, the grammar schools, and the private schools of many grades and characters which carry their pupils over a longer or shorter stretch of the preparatory curriculum; these constitute the great bulk of the secondary instruction. It is true that many, perhaps most, of the new municipal secondary schools in England, known as schools of science, or even by our own term, high schools, are coeducational; and these schools approach the American ideal more closely than any other considerable body of institutions,—not only in coeducation, by the way, but in several other characteristic

[6] *Republic*, Book V, especially 455.

[7] Monroe, *Source book of the history of education*, p. 401 ff.

features. Besides these there are in England a number of private secondary schools on the coeducational plan, most of them more or less avowedly experimental.[8]

It should be noted in passing that most European countries while making separate schools the universal rule in secondary education, have always tended strongly to the same plan in the elementary schools also. It is safe to say that the greater part of elementary education above the first two or three years is done in separate schools, and that the greater part of the coeducational schools above these grades would be excused by those who control them, solely on the ground of circumstances which forbade the establishment and maintenance of separate schools.

In view of all this the statistics of secondary schools in America are impressive enough. The conditions in 1906-7, as shown by the *Report of the Commissioner of Education* for 1907 (II, p. 1073) is as follows:

Enrollment in secondary schools, both public and private:			
Separate schools:			
For boys alone,	44,895		
For girls alone,	48,403	93,298	11 per cent.
Coeducational schools:			
Boys	320,029		
Girls	434,864	754,893	89 per cent.
		848,191	
Separate schools		43,504	5.8 per cent.
Coeducational schools		707,577	94.2 per cent.

3. Identical curriculums.

It is quite clear that one may believe in equal educational privileges for the two sexes without believing that they should receive the same training; or even that one may approve the mingling of the sexes in the same institution and still hold that the studies for boys and girls should be different. We have here, then, a third and distinct question in the coeducational problem. It can conceivably be answered in many ways:

[8] Alice Wood—*Coeducation*, London, 1903.

we may insist upon identical studies and instruction for all; or we may advocate a partial variation of the curriculum; or we may maintain the principle of a complete differentiation between the curriculums for the two sexes.

As to the actual practise of high schools in this respect, there seem to be no comprehensive reports or statistics. But it is quite safe to say that identity of courses for boys and girls is the general rule, and differentiation the exception; this is subject, of course, to certain modifications, of which we shall speak later. The great majority of small high schools find it impossible to offer variation of courses for the two sexes; indeed, many of them, as is well known, exhaust all their resources in maintaining one "course," which all students, boys and girls of all tastes and aptitudes, must perforce take. But this is not all: in the larger and even in the largest high schools, differentiation of courses for boys and girls explicitly on the basis of sex, is rarely heard of, aside, of course, from the provision of shopwork for boys, and domestic art and science for girls. It is interesting and significant to examine, with reference to this question, the two standard works on secondary education in America: Dr. Brown's *Making of our middle schools,* and Professor DeGarmo's *Principles of secondary education.* In neither is there any considerable mention of differences in courses to fit the two sexes either as a fact or as a problem; an examination of the specimen curriculums appended to each book fails to reveal the presence of any such differentiation in the schools represented.

Section 2. Debate and experiment

So far as the public high school is considered, then, tradition and status are overwhelmingly for coeducation. But we have begun in recent years to raise serious question concerning many established facts in our education, and coeducation has not escaped. The wonder is that the doubt and criticism did not arise sooner, and that they have not reached far greater measure. Both discussion and experiment have occurred, altho the discussion has as usual been out of all proportion to the practical testing. As so many of our colleges,

especially those of recent foundation, are also coeducational, it is not strange that they should be included in the debate; indeed, one of the earliest and most conspicuous experiments was that in the Junior College of the University of Chicago. In view of the very close relation between the first two years of college and the high school, and the great similarity between the two classes of students, we shall not attempt to exclude the college from the discussion.

Probably the most interesting experiment in a high school is found in the Englewood high school in Chicago. The plan is termed by Principal Armstrong "Limited segregation," and denotes that "the sexes are not in separate buildings, but simply separated in their recitations." The plan is meant to permit the instruction to be fitted to the widely diverse natures of boy and girl at the critical period. This would include, we may assume, differences both in content and method, and possibly, altho not necessarily, in studies pursued. It is the mildest form of segregation, leaving untouched a very large part of the influences that are usually placed to the credit of coeducation. The verdict of the principal, and apparently the general consensus of opinion are favorable to the plan. The whole experiment should be carefully studied by all who are interested in the high school as an institution.[9] A similar experiment is in process in the Broadway high school in Seattle, from which we may hope to learn much when sufficient time has elapsed.

The University of Chicago experiment in segregation was, at its initiation, the object of animated discussion, pro and con, but especially the latter.[10]

Similar experiments are being made in other parts of the country; it is to them that we must look for reliable light upon the whole question.

Curiously enough, while coeducational America is thus

[9] J. E. Armstrong—*Limited segregation.* Published by the Illinois Congress of Mothers, 1906. See also article by the same writer, *School review,* December, 1906, p. 726 ff.

[10] *Nation,* 75: 147. *Popular Science Monthly* 62: 5. See also very important articles in the EDUCATIONAL REVIEW, February, 1903, p. 121 ff., and the *Nation* (New York) 76: 268.

doubting and testing, England, completely committed by tradition to the separate school, is making a number of enthusiastic experiments with coeducation. How numerous these are and how strong is the favorable conviction of those concerned in them can be learned by reference to Miss Alice Wood's little book, *Coeducation* (published by Longmans), and also, tho less definitely, to certain papers in the recently published *Report of the International Inquiry on Moral Education.*[11]

Section 3. Comments

Taking a general view of the situation as to coeducation we are imprest with the following points:

First, we can not but see that coeducation in school is no isolated fact, but is part and parcel of our American social system, which in all its phases permits great freedom of association between the youth of the two sexes. When this fact is once fully realized coeducation loses part of its force, part of its credit in the eyes of its advocates, and part of its dangers, or at least part of its responsibility, in the eyes of its opponents. Moreover, the loss of coeducation in schools wears a less serious aspect when one perceives that coeducation would still continue to act in home and church, on the street, and in general social life. At the same time this fundamental character of the coeducational plan must be a serious consideration to those who would abolish it from the school, inasmuch as there is reason to think that the general social system would vigorously oppose a move so contrary to its genius and method. Just as the introduction of coeducation is slow and laborious in Germany and England, and meets opposition and hostility at every step, so would the segregation of the sexes in the United States. This has already been shown in the attitude of great numbers of people toward the "limited segregation" of the University of Chicago and of some of the large high schools.

Secondly, it is vitally important to distinguish between

[11] See especially Vol. I, Chapters XVIII, XIX, XX. See also *Report of Moseley Educational Commission*, p. 13, 113, 143, 165 f., 267, 301, 319, 354.

the separate problems often confused under the term coeducation; this has already been discust in Section 1. Argument quite sufficient to establish the need of different curriculums for boys and girls might fall far short of proving that the boys and girls should attend separate schools. And conceivably valid reasons might be given for separate and different instruction for the two sexes, even tho both pursue the same branches, at least in name; for example, both might study physics, but in separate classes and with a different choice of matter and method of teaching. Underlying all these questions, and safe from any attack, in theory at least, is the doctrine of equal opportunity for the two sexes; no debate or experiment on other questions should be suspected of sinister designs on this great accepted and admirable principle of American education and American social life.

So far as the mingling of the sexes in classes and in schools is concerned, the most subtle, obscure, and difficult question is of course that of the mutual influence of the sexes upon the wholesomeness and efficiency in the present school life and upon soundness of development for the future. Two serious charges are made against the coeducational plan, that the pupils of both sexes are distracted from their school work, and that actual sexual immorality occasionally results. Upon both these points reliable data of observed fact are meager in the extreme, if not quite wanting, and opinion among experts is hopelessly conflicting. The present writer has not yet learned of a single case of sexual immorality that could be charged definitely to the school. One thing needs great emphasis just here, and that is the constant danger of what might be called the physiological fallacy regarding the sex impulse and nature: sex is, in fact, far more psychic than physiological in all normal civilized human beings, and especially in early adolescence. The comparatively pure and wholesome sex feelings of the typical "first love" remove their object far above all touch of bodily grossness. It is a superficial and illusory view that attempts to decide the sex problem in coeducation without profound regard for this great element in human sex life. It is quite in accord with Nature's ways

that she should sell us the rich possibilities of this influence at the price of serious perils from the coarser strains in sexual nature. It would not be surprizing if "Nothing venture, nothing have" applied also to this problem.

The great need in the coeducation debate, as in so many educational problems, is experiment, or at least experience, and the study of the results. Let those of us who favor coeducation lay aside all bigotry and assumption of infallible right for our side of the question, and welcome conservative and guarded experiments, such as those already referred to in this paper. Such experiments are needed in far greater number than now exist, and should be subjected to the most careful scrutiny. They must be continued long enough to outwear the effects of novelty and curiosity; interpretation must guard most vigilantly against that sin which universally besets the advance of knowledge, the *post hoc ergo propter hoc* fallacy. Of course, demonstration can not be expected, but every thoro experiment will, in its own form and development, be a living witness and working exemplification in itself of what can be done or can not be done under certain conditions. Such conclusions may be applied with much confidence where the conditions are closely similar. But hasty generalizations must be shunned like poison.

Finally, not because it comes logically last, but because it is vital to many problems in school life, we must raise the question whether many of the difficulties and perils that perplex our high school teachers and administrators rise not so much from coeducation as from the general *laisser faire* policy which rules the moral and spiritual realm of education today. How completely the emphasis has changed from the moral to the intellectual in secondary school and college can be seen in a score of ways. The greatest lesson for our schools to learn today is that moral development will not take care of itself, but must be tended and cultivated quite as assiduously and wisely as the growth of knowledge and reason. A conservative believer in coeducation must still admit the perils that inhere in the plan, but most good things have their own peculiar dangers that may be avoided, either by renuncia-

tion or by vigilance and assiduity. No one should expect coeducation to "run itself"; we may hope to reap its fruits only as we obviate the dangers by the wisest and most unflagging guidance including both restraint and stimulus.

IV. FREEDOM AND SPONTANEITY IN STUDENT LIFE

No feature is more characteristic of American education, both in school and out, than the freedom and encouragement that it gives to the impulses, desires, ambitions, and manners of children and youth. Not that America is alone in this respect, for all the leading people of the world are recognizing the child as never before; witness Ellen Key's extreme *Century of the child,*[1] and Paulsen's moderate but decided *Väter und Söhne,*[2] among many voices announcing the changing times. But America is in this, as in so many respects, in the forefront,—with the result that she is peculiarly subject to the criticism of the conservative, a needed and wholesome criticism, doubtless, even tho it is not always quite fair. From kindergarten,—and nowhere has the kindergarten, the embodiment of child-freedom, been more fully adopted than in America,—from kindergarten to high school, the American school is marked by freedom and ease of common life between teacher and pupil; the very fact is significant that the American says *teacher* while the European says *master.* Among us the victory of the "New Education" over the "Old" is most sweeping; compare, for example, the oath of the Athenian ephebos graduating into citizenship, with the commencement "oration" of the modern high school youth: the one dictated by immemorial tradition and reverently accepted by the lad; the other expressing, in theory at least, the independent and spontaneous ideas and impulses of the youth.

In the high school this freedom and initiative are shown particularly in two general forms: the first including the numerous and conspicuous "student activities," such as athletics, school papers and annuals, societies and clubs; the

[1] English translation published by G. P. Putnam's Sons, 1909.
[2] *Deutsche Rundschau* (Berlin), May, 1907.

second comprising all the various forms and degrees of the elective principle in courses and studies. In both of these respects the American high school stands alone among the secondary schools of the present and past; the only approach to it being the considerable amount of independence and authority allowed to the older boys in English "public" and other high grade boarding schools; this liberty, however, affects only general life and discipline, and does not extend to studies and class work, where the usual strict prescription and control are found.

Concerning election in its various forms little need be said here for the reason that so much has already been said elsewhere, and both the situation and the problem are widely understood. The American high school pupil, in all but the smallest schools, has a considerable range of choice as to his course of studies: the choice sometimes is between various so-called "courses" or groups of studies, each group covering the four years of the high school, with little or no variations within the group; sometimes it is a direct choice of separate studies or branches, so that the pupil chooses, not merely the general direction of his training, but the particular branches to be included. The first named form of election, the option of various kinds of curriculums, is found to some extent in European school systems, as illustrated by the three types of standard secondary schools in Germany and the various trade, technical, and commercial secondary schools growing up parallel to these. It is certain, however, that the pupil has far less voice or influence in the selection of a course than has the American boy; the decision is often based entirely upon social standing and practically always made by the parent, often with little or no regard for the tastes and aptitudes of the youth. The present writer knows of a German father of high social and professional rank who, in spite of his son's passion and talent for science, qualities of which the father was enthusiastically proud, nevertheless sent the lad to the classical gymnasium because, forsooth, that was socially the correct thing.

Of the more open election involved in choosing separate

branches to make up a curriculum, Europe knows practically nothing, with the meager exception of a few options between certain closely allied subjects, such as two modern languages, or two natural sciences, and the like. To what excesses our own secondary schools have sometimes gone in this respect need not be here recounted; the height of the elective fever seems to be past, and we are again realizing that age and experience may have something to say to youth even concerning the choice of its studies in the secondary school.

More profound and significant than choice of studies is the scope and encouragement given in the high school to the spontaneity and initiative of the students in non-academic matters. The most striking region for this freedom has, in general, been athletics, with its mechanism of teams and managers, trips and schedules, gate receipts and guarantees, involving often the gathering and expending of thousands of dollars, and all the responsibilities of large and complex business affairs. Less conspicuous but important are school publications, annuals and monthlies, with occasionally a weekly paper. Growing with a startling speed are the student social affairs,—dances, picnics, receptions, theater parties, and the like. Perhaps no more serious problems confront the high school principal than those arising out of these affairs; certainly no part of school life more seriously threatens both good work in school studies and that democracy which is so essential to our high schools. Fraternities must also be mentioned here, as the form in which the student impulse has come sharply into conflict with school authority; fortunately the outcome has served to show that the final word is still to be spoken, not by the students, but by the presumably better judgment of teachers and school boards. The violence of the conflict over fraternities does show, however, how powerful are the impulses and resolution of boys and girls of high school age. While in practically all cases the school authorities retain final authority in all these various activities, and in many cases take an active part in plans and methods, still the motive and ideals come in the main from the students, and must be reckoned as a real manifestation of their im-

pulses; indeed, restraint is always a considerable part of the rôle of the faculty.

While we can not here undertake any full discussion of this great feature of the high school situation, we call attention to a few salient points. And first this system of freedom and encouragement to the natural impulses of youth should furnish invaluable evidence as to the real character of adolescent tendencies. Even a slight inspection of student activities in high schools enables us to note several marked impulses, particularly those of bodily activity and prowess, rivalry in various forms, especially in combination with class or clan spirit, fondness for note or its specious counterfeit notoriety, and finally the passion to be like one's elders, especially those immediately above us in age. In each case the impulse shows itself in rational and irrational forms: moderate athletic interest *versus* wild excess; healthy and human competition *versus* fierce and irresponsible conflict; a wholesome desire to lift one's self above mediocrity as opposed to the zeal which sacrifices health and well-rounded life for a mark or prize,—the latter, by the way, usually in athletics or debate rather than school studies; and lastly the indispensable instinct of maturing as contrasted with the avid pursuit of all sorts of collegesque earmarks, such as the familiar pegtop trousers and long pipes, school and class colors and yells, and other, not always even harmless externalities of the next higher academic grade. The main point is that the high school affords a unique field for the observation and determination of these impulses. One caution must be exprest here, however, in far fewer words than it deserves, namely, that the freedom of the high school is not individual but mass freedom, and hence the impulses which manifest themselves so clearly are mass impulses and common or prevalent characters; on special or individual impulses the situation throws no remarkable light; indeed, it is likely that much individual character is crusht under the wheels of the Juggernaut of the general taste and desire.

As to the degree and operation of the freedom itself, it is easy to be ultra conservative and condemn it as excessive

and pernicious, or to be sanguine and quasi progressive and approve it as part and parcel of the good "New education." Neither verdict is warranted by the evidence in hand, and in all probability neither is correct. Educational doctrine since Rousseau's day has been more and more deeply infected with his extreme conceptions of the great truth of the rights and needs of childhood. The old formula declared that the first duty of youth was obedience; the new, after Rousseau, forbids us ever to command; surely, here as elsewhere, the right path is that mean between the two extremes which Aristotle pronounces to be the very nature of virtue. The old education suffered loss almost beyond conception thru neglecting and even crushing the natural powers and impulsions of childhood; our peril seems rather to lie in the removal of guidance and restraint and allowing the natural impulses to run riot in the pursuit of the moment, and so lose their due and proper fruit for growth and development. The raw energies of youthful impulses and enthusiasms are in constant need of the counsel, direction, enlightenment, and even restraint of the adult intelligence and will. The real art of training is to direct and utilize these forces to the two great ends of developmental life, the normal joy and richness of childhood, and the highest realization of mature potentialities. The old education was blind to the former aim, the new tends to slight the latter; it remains for the future to harmonize and express both.

Meanwhile the wise teacher or parent will not be over-anxious about the innumerable oddities and excesses of youth; the truth is that real dangers are usually not excesses or superfluities but rather defects. We must deplore the tendency in our schools to win their games at the cost of scholarship and even honor, and we can not fully approve the swirl of social affairs that just now threatens the work of our schools; but the real task is not so much the eradication of these evils as it is the infusion of new life into higher and still no less natural impulses,—those of clear thought and high mental development, fine and dominant social and personal honor, and, as Milton has it in his splendid *Tractate on education,*

"high hopes of living to be brave men and worthy patriots, dear to God and famous to all ages."

We may well close with these noble words of the poet and schoolmaster, and a suggestion of their relation to the four characteristics we have considered: the democracy of the high school makes such ideals more than ever needed in our land; they have, for the age of early adolescence, a peculiar appeal, likely soon to pass away unless seized by education and solidified into habit and spiritual principle; by their power coeducation may be enabled to yield its characteristic benefits without falling into its peculiar perils; and only by their aid can the great currents of free activity in youth be directed permanently into the channels of a rich and beneficent life.

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V

A CHRISTMAS VISION[1]

Once upon a time three men, old and wise, led by a wonderful star, carried gifts of gold, frankincense, and myrrh to a newborn child.

> "They laid their offerings at his feet:
> The gold was their tribute to a king,
> The frankincense, with its odor sweet,
> Was for the Priest, the Paraclete,
> The myrrh for the body's burying."

Centuries rolled by, generations of men came and went, but the star continued to shine. It is shining still. For some eyes it has been lost in the multitude of other stars that light our human understanding. Many a man, wise in his generation, an earnest seeker for the king that is to be, has followed the light of some other star, and has laid his gift at the feet of a youth, a man, or even at the door of a temple, a dwelling-place, or a seat of learning. But again and again a man really wise, wise for all time, has singled out from the others the wonderful star, has followed where it leads, and has laid his gift at the feet of a child, at the feet of all children that are or will be, at the feet of childhood itself.

When the wise man sees in childhood that which some day will rule, he brings his gift of gold to the king. It was such a gift that Comenius brought more than three hundred years ago when he performed such important service in the cause of elementary education. They are gold that is heaped at the feet of childhood—all the institutions that are designed to fit it for kingship—schools, courses of study, child-labor laws, and so on.

[1] An address delivered before the Brooklyn Kindergarten Association, December, 1908.

When the wise man sees in childhood not kingship alone, but divinity, he brings a gift of frankincense. It was such a gift that Froebel brought. True, he perceived two selves in the child—"one, peculiar, arbitrary, capricious, different from all others, hostile to them, and founded on short-sighted egotism. But the other self he perceived to be reason, common to all humanity, unselfish and universal, feeding on truth and beauty and holiness." In the kindergarten he attempted to unfold the rational self and chain down the irrational. He tried to cultivate selfhood and repress selfishness.

The myrrh brought of old by the wise men was a gift, not to the king nor to the god, but to the man of sorrows. Many wise men have come in our own day with this gift for childhood, the precious gift of sympathy that comes from an understanding of a child's little human needs and human trials, trials of slight importance to the man, but so tragic to the child—such are Robert Louis Stevenson, Eugene Field, and a hundred others.

Now, when Miss Curtis invited me to speak to you this afternoon she gave me a topic, "The Christmas vision," nothing more. Then she went away to get this program printed with the star on it, and left me with my vision.

I saw the star guiding us teachers—you and me—to the cradle where childhood lies, and in our hands we carried gold, frankincense, and myrrh. Our gold was offered to the king; and it was what the wisest of kings chose above any other form of riches—not knowledge, that comes easily and goes easily, but wisdom which we are told "is more precious than rubies, and all the things we can desire are not to be compared unto her. Length of days is in her right hand, and in her left hand riches and honor. Her ways are ways of pleasantness and all her paths are peace." Now, in my vision we had learned how to make children wise. We had been brave enough to discard all that programs or courses of study prescribe that is merely traditional or temporary, and we had held fast to that which is eternal.

The frankincense we offered was our reverence for the child's personality, our recognition of the divine in him. Hav-

ing reverence, it was not possible for us to make to ourselves a graven image of what, in our opinion, a child should be, and then insist upon the child's growing like the image. In my vision we had so thoroly studied the nature of childhood as to learn what it needs for its development. In attempting to chain down the child's lower self we had ceased to forget that there is a higher self that must be allowed to develop.

The myrrh that we offered was the power to enter into a child's joys and sorrows—to become childlike ourselves. We were possest of the power to become as little children, a power that is sometimes given to the ignorant and humble and denied to the learned and proud.

This, then, is the vision of you and me being led to the feet of childhood, bearing in our hands gifts of wisdom, reverence, and sympathy. But the best has not been told. You remember the young man who was afraid because the enemy compassing the city seemed so many and the supporters of the righteous man so few, and you remember that, when the prophet prayed that the young man's eyes might be opened, they *were* opened and he saw: and behold, the mountain was full of horses and chariots of fire round about the prophet. In my vision our eyes were opened, and we could see how many more were with us than against us. We could see thousands of teachers coming from all parts of the world bringing wisdom, reverence, and sympathy as gifts to childhood; and we could see wise men and women not called teachers at all, but statesmen, churchmen, physicians, poets, novelists, painters, all following the star we followed, and bearing in their hands gifts similar to ours. And so we were full of hope, courage, joy, not only because we were bearers of such precious gifts, but also because we were part of the glorious host of gift-bearers. This, to my mind, is for kindergartners, for all teachers, the Christmas message, or, to use the words of Miss Curtis, "The Christmas vision."

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VI

EDUCATION BY PLAY

THE INSISTENT DEMAND FOR NATURAL EDUCATION

Public education is slowly releasing itself from pure scholasticism. Born and reared in a clerical atmosphere, it maintained for its ideas the values of serious learning, and worked steadily and successfully toward those ends. The result has been that the general culture of the world has increased, more and better opportunities have been given to the many to select themselves for the learned professions, and large profits have been returned to the general mass from advanced science and administration.

The speed and certainty of the movements of society in trade and the handling of merchandise have become assured by the general knowledge of the fundamentals of reading, writing, and arithmetic. While all this is true, and much more can be claimed, the education of today no more results in the training for the establishment of the proper basis for human relationship than it did in its beginning.

Since the striking out from our plan of instruction in behavior which was based upon religion, there have been sporadic, and but measurably successful, attempts to produce courses in ethics which would take its place. Whatever the final result of this form of instruction will be, it is safe to predict that rules of the proper method of ordering life will never be learned from books or by precepts as definitely, and as certainly, as they will by the method that nature has provided for us, by "play."

Man's success in life depends upon his assuming proper relations to his fellow-man, and the success of our scheme of civilization depends upon the proper maintenance of these human relations.

Where failure has been the lot of many, it is invariably due (physical defects aside) to inability to follow out one or more of the great principles of human relationship, which are the rules of the game and are taught in the play of childhood and adolescence with dramatic certitude.

Despite physical and mental deformity, dangerous pavements, dirty stairways, and crowded houses, every child not already moribund will endeavor to play. The instinct is vital and inseparable from life. As such it demands the respect and attention of the biologist, for instincts so persistent mean fundamental evolutionary principles which are indissolubly connected with racial continuity and progress.

Play is the natural preparation for life and social adjustment. The sand pile and mud pie, the chase and hiding, are the first practise in getting acquainted with the making of things and the ways of competitors. The formation of a "side" or a team is the first and most vital recognition of cooperation and partnership. The differentiation of what is fair from what is not fair is the first spontaneous recognition of law and order.

There is a clearly defined course of study and an accurate syllabus of play, written by the "school superintendent of nature," in the developing human being, that, given the opportunity, will be followed by every child thru its course of development more certainly than if it were laid down by fallible human hand.

Its content will be at first simple, attuned to the simple nature of the child; gradually it will unfold to greater complexity as different abilities are added and instincts ripen. Its items will be practised over and over again, and its lessons learned with tears, shouts, and laughter, till they become part of the child forever.

It teaches the fruits of endeavor at their real worth, but not as the books tell about it in terms of unreal illustrations or abstractions. It gives real values to tenacity, courage, fairness, courtesy, cheerfulness, cleverness, and brute force long before the names of these qualities are learned and its im-

pressions become character before the words can be spelled.

In short, here is a whole plan of education, the importance of which is immeasurable. This we have but dimly recognized, tho we have grudgingly given it a place in our finite endeavor to do duty to our children.

Our enlightenment has gone to the extent of providing some playgrounds, and leaving them unattended, instituting recesses in the school day, and leaving them unorganized, and worse, giving a little of the physical training time for play, time stolen from other valuable endeavor; and so on. The whole list would make a pitiful array of concession to the human nature of the child; an unorganized and occasional method of providing the minimum.

From this we are threatened with and have now a relatively, playless, and therefore, godless, generation growing up without having virtually learned in any real way justice, courage, and the value of decently and fairly "fighting hard and square," in the game of life.

The surest way that municipal corruption will perpetuate itself is to withhold the proper remedy.

We need and must have a thoro and complete education by play, conducted by the educational authorities in connection with, but not supplanting its present work. It can not be conducted by any other authority any more than proper medical supervision of instruction can be made by unsympathetic boards of health.

In the grades there must be play thruout the school year and in the summer. This can be done in classroom and playground during and after school. As it is often the sad case that spontaneous play reaction is weak, instruction is essential at first; later it will wane into a delightful sympathetic supervision. To this end, the present mechanism of the school and the play and game opportunities must be utilized to their fullest extent. It is not enough to provide city playgrounds with an attendant in charge, there should be teachers of physical training trained in play, games, and athletics. The cities' athletic fields must maintain teachers in athletics and

athletic games, the school playgrounds should be open after school with teachers of play and athletics in attendance and constantly acting as teachers and supervisors rather than attendants. New play, game, and athletic spaces should be added until there is an ample provision for every schoolchild. Not only should there be ample provision made, but the same attention should be given to the child's education by play as there is to his education in arithmetic, but it should be seen to by our educators that a course of study is laid down, followed, learned, marked, and the student graduated therein. Instead of endeavoring, in an occasional way, to grudgingly increase play space as the budget or the tax rate will allow, we should change our point of regard and begin with the thesis that every child must be given a minimum of one hour of play every day of its school life: each hour to be made of value to itself and to the city. We must then survey our facilities and our corps, and increase the same intelligently with the definite end in view.

This will lead us first to the school playground, so often closed to the children, barred out by its gates, next to the parks and piers, and lastly to the streets. Let us first use the facilities at hand, providing proper instruction and supervision; if these are not adequate (which they are not), we will know how much further we must go.

So far, only the school life of the child has been considered. The duty of the city to provide play opportunity for its youngest children is equally obvious. The necessity of providing for the continuance of play after school life is over is one of the crying needs of the day. Our girls will less often go wrong and our young men live more clean lives if, during the natural playtimes of evening, Saturday and Sunday, they are given the opportunity of playing the games they have learned to love as their natural birthright during their schooldays.

Nor have we considered other than the educational values of the play and game. Play takes time away from perilous and stupid idleness. It gives strong bodies resistant to the omnipresent disease germs, and inspires as certainly as may

be the continuance of a vigorous racial stock. The right way to begin the attack on the tuberculosis scourge is to see to it that each child has ample and appropriate play.

The fact that a child has a good time in his play, the joy of which makes childhood the subject of the pleasantest reminiscences of manhood and womanhood, has not been obtruded. Life would not be worth the living without the play of the children. Nor would it seem that children were worth while if they were not to play.

For their own education, for their health and their joy, and for the sake of a new generation, trained in the play ideals of vigor, honesty, tenacity, and courage, let us see to it that every child is given the most thoro course of play we can plan or our adult instincts can prompt.

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VII

CONTRIBUTIONS TO THE HISTORY OF AMERICAN TEACHING (II) [1]

When the traveler returns from a long journey, his resting hours take him in memory to the places and persons he has met. He reviews his associations, the delights once enjoyed are renewed, even tho the participants have gone to the beyond; so with me tonight. Places are not so vividly by, as are persons. My gratification is in the companionship of the men with whom I administered schools, by whose counsel much of what I have accomplished was attained.

The office of superintendent of schools is comparatively a new one. About sixty years ago, Providence, R. I., appointed the first. Nathan Bishop and S. S. Greene were the pioneers. The former early undertook the Boston field. As a pupil in those schools, I remember him as he was seen occasionally on trips of inspection. What he accomplished is not a matter of record.

The propriety of such a supervising and consulting officer soon became apparent, and rapidly other cities in the country installed a superintendent of schools, with varying powers and duties. The names on the permanent roll are those of noble men and patriots.

In view of the careers of these officers, one must conclude that no sordid or low motives lead men to enter upon the work. Only the highest and most lovely character can impel the cultured man of the present to embark upon a voyage that promises little material return. Financial remuneration is inadequate; a scholarly life is impossible; the probability of occupying a transient domicile faces him who enters upon the undertaking.

The administration of a public-school system demands every hour in the working day in the execution of duties which are

[1] The first paper in this series appeared in the EDUCATIONAL REVIEW for September, 1909.

not directly related to literary or scientific pursuits. Those superintendents who have compiled textbooks have done so at the expense of force that rightfully should have been expended in a more loyal direction. If authorship be sought, the superintendent should retire from office while writing. When a man accepts the position, it is with the understanding that all of him is at the service of his employer; that he can not morally enter upon any other field during his incumbency. His time and talent are under contract.

First among the precious friends and notable superintendents whose name rushes promptly to me is that of Dr. W. T. Harris, now happily preserved with us, and in whose company, at his home in Providence, R. I., one is still permitted to drink from the great fountain of wisdom.[1]

In the sixties, the superintendent of St. Louis was putting forth those incomparable school reports which so aroused the superintendent world. We joined our enthusiasm to his wisdom. We journeyed to him, and he, with that genial heartfulness which has ever been a chief part of him, frequently came to us. We had meetings of counsel at neighboring cities. We met at Indianapolis, Chicago, and journeyed to St. Louis to spend a few hours on Saturdays in his company. He was the greatest of us all; words inadequately tell what the educational world has profited in the forty years since, thru his pen and brain. The ordinary man is a pigmy in his presence. Europe has crowned him as the great educational philosopher, while we are vain in being acknowledged as his pupils.

It was about these times that a group of us, Pickard, Powell, Lane, and others, gathered in class to sit at the feet of Elizabeth Peabody, Horace Mann's sister-in-law, the advance apostle and instructor in the kindergarten school. She was old and learned and bright. Our first authoritative view of Froebel and his philosophy was gained that week. Years after, while a guest in Berlin, of Frau Schrader, Froebel's niece, a persistent kindergarten promoter, I failed to receive like inspiration to that which Miss Peabody's teaching accomplished.

[1] Since the above was written Dr. Harris has died.

Berlin kindergartens in 1891 were a disappointment. With the failure to obtain assistance from the public treasury, and the coolness in the work maintained by the school circles, Frau Schrader had not the assistance that the work deserved. But she persisted in promoting the instruction and made remarkable showing with contributions from the private purses of herself and friends. The widow of Froebel was then living at Hamburg, but she had little interest in the great work commenced by her husband.

The kindergarten is effective principally in the United States, and even here the many attempts under that name are not encouraging to the intelligent student of Froebel's philosophy.

John D. Philbrick left Dartmouth College for the teacher's platform, and in due time was made the Superintendent of Boston. He was vigorous, learned, and ambitious. Among other advances, he caused to be constructed the first modern graded schoolhouse,—the old Brimmer. Suddenly, at the end of twenty-five years' service taken from the very pith of his strong manhood, he was dropt from the roll, cast out to look for the where-with-all for daily bread.

In a few years, with a brilliant, short directorate of American education at the Paris Exposition, after writing an exhaustive report on the city schools of the country under the auspices of the National Commissioner of Education, he died all too soon. Who shall say the cause of his hastened death? On my last visit to him at his farm home in Danvers, Mass., the delights in listening to his advances and conquests for Boston schools were side by side with the sadness caused by his grief at the treatment received from his associates on the Boston Board.

A. J. Rickoff, the banner superintendent of Cleveland, was not retained after having gained for that city the Paris award for the best system in the United States. Those of us who were with him during his last years know that he was broken in heart and spirit.

One of the dearest and sweetest characters, Stevenson of Columbus, Ohio, awoke one morning, after twenty-five years' commended administration, to find his successor elected, no

intimation of which movement had been given him. He soon died after futile efforts to recover himself.

Similarly, Jones of Erie, Pa., at the end of more than thirty years, was dropt, when, broken and disheartened, he retired from notice, and almost from acquaintance, to die in a little hamlet in the Far West.

W. B. Powell was killed by the ordinary machinations of that element of American society that viciously participates in attacks made from ignorant and improper motives. The attack on Powell was led by men who had position, therefore power. The Senate Document on the schools of Washington, D. C., put forth by its committee in charge of Senator Stewart of Nevada, presents one of the most disgraceful and ignorant misrepresentations of the schools of a city ever printed. I know of but one other book in the English language that equals it in ignorance, but not in wickedness: *The life of Lord Timothy Dexter of Newburyport,* written by himself, a few copies of which still exist. This report of the Stewart committee has probably been retired by the Senate Committee on *Disposition of useless papers.* One copy, embalmed I trust, remains in the family of each of the men who signed the report.

Powell, retired, tried to interest himself in active work, traveled a little, and, like the others, died broken in heart and spirit, a comparatively young man. I knew him intimately; I worked with him when both were young and ambitious. His single thought was the betterment of the common school. He was the peer of any; he received the recompense often obtained by the city superintendent.

Bright among the spirits about me is that of Colonel Francis W. Parker. Everybody knew and loved him; to me especially, our antecedents as boys in New Hampshire being nearly identical, and our army life, from '61 to '65, being similar, he was very near. What a genial, jolly temperament was his, and how wildly possest with a divine impulse of child-life and power. His presence was a contribution to the highest emotions; his reason, sometimes, was supplanted by a fervor possest and demonstrated by no other in our ranks. His lectures were so interwoven with his personal magnetism as to carry

his audience with him to ecstatic heights. I have forgotten all my trifling objections to his hyperbolic illustrations and over-colored pictures in the realization of his great, warm heart, and his genial conversation. A few hours' social converse with Frank Parker was ample remuneration for a journey to his side.

The Quincy plan marks quite a spot in our educational career. Colonel Parker fell into company with an eminent man, Charles Francis Adams, who, awakened from the school lethargy of a New England community, believed, under Colonel Parker's inspiration, that a new era had arrived in common-school management. Mr. Adams exploited the discovery. In common with the rest, I was profoundly interested. Quincy was far from my home. Among inquiries made, one was to the venerable Danial Hagar, Principal of the Salem Normal School. Dr. Hagar, who had my life long been an adviser in his visits to Denver, in interviews at conventions and at his home, wrote that he would spend the day at Quincy and write me about it. When his letter came, I learned that he had spent an interested day at Quincy. I learned that, while he had found nothing new, he had found new combinations and old methods applied under new relations; that the visit was well worth making, but that appropriation or imitation of the work doing there could not be transplanted, except the presiding genius and administrator, Colonel Parker, were taken along; that without his personal presence the term Quincy method could not obtain.

Dr. W. T. Harris wrote me, "The Quincy Plan is the highest pedagogical joke of our day and generation." The accuracy of the judgment of the writers has been verified.

Associated with Dr. Harris early in St. Louis was Frank A. Fitzpatrick, principal of a ward school, and one of the group of philosophers gathered in that city. Among them were Davidson, Morgan, and Soldan, who with others since famous were students with the great leader in speculative philosophy. The work did not phase Fitzpatrick's tendency to avoid psychological recluseness, and while he appropriated the benefit of counsels, he was not disposed permanently to travel in the

philosophical road exclusively. He is with us today and very much alive to all important issues. After a competent experience as superintendent in St. Louis, Leavenworth, Omaha, and Kansas City, he left school administration for business activity. I have learned him to be one of the fullest (if the adjective may admit of comparison) all-around men in school, as well as in general affairs, since 1870.

He has never ceased interest in education and remains a wise, safe, and prudent counselor. Scores of schoolmasters are indebted to Frank for helpful advice and assistance. He is an omnivorous reader, and holds and uses what he reads. As a reference in politics, history, or religion, either ancient or modern, American or European, no encyclopedia can replace him. His acquaintances are great in number and influential in quality. His presence is welcomed in the eminent homes of the land, his counsel sought by men from every plane. Had he remained schoolmaster, he would have been first; had he been a politician, his rise would have been assured; had he adopted letters, his pen would have been mighty. Education lost when he yielded to the call of business; now he is more comfortable, while the schools are less effective.

Over against the class of able men who have past on, leaving the results their good work has wrought at such personal sacrifice, is found the other group of superintendents who have been fairly permanent in position. Unlike the policy of that great institution, the M. E. Church, which some of the ablest minds approve, namely, frequently to transfer their clergy, school management can never be strong and progressive with frequent change of manager; the work can not be taken up by a man's successor. Each newcomer, however able, is incompetent along the ambitious lines of his predecessor; sometimes, it is true, weak lines exist which ought to be effaced. The school system must be revamped in accordance with the notions of the new supervisor, and so, what crimes are committed upon thousands of pupils by the revolutionary initial step of the new arrival! Better continue in the necessarily somewhat imperfect system of the incumbent, always providing no heinous faults are apparent, than to

change. The impossibility of finding a man, having grand qualities without having great defects, is apparent. Nature provides the nightingale with song, but not the eagle.

The superintendent is necessarily driven to conservatism, but we read of noble and ignoble conservatism. The duties of the superintendent are quite unlike those of any other public office. His principals are not the small board of a commercial or transportation corporation, few in number, but the entire population—men, women, and children. His acts are provokingly before everybody, and each one of that everybody insists upon the right of counsel; too often the compulsory yielding to that counsel. His employer is not a public nor a private, but a quasi-public corporation.

The outcome is overwhelming. The possible and actual differences upon the issues that ultimately rest with the superintendent's decision,—modifications of course of study, discipline for the individual teacher or pupil, location of schoolhouses, appointment of teachers, adoption of the amateur reformer's plans,—scores of problems are left with him to solve. He decides according to his expert knowledge gained by study, observation, and experience, with presumably competent judgment. The decision in each case affronts that group which is particularly interested. In time the groups of the disaffected are many: they join hands in the condemnation of him who, as they believe, has erroneously decided, organized opposition becomes effective and, like Bram Powell, the superintendent departs; with another, and often quite as able or even abler superintendent, the revolution in management is on, while the teacher and pupils start on a new trail.

The office of the city superintendent is especially vulnerable. It is at the mercy not only of the whole community, but also of the press, and the press of today is of a varying quality. Its great power has made it formidable and has drawn to its ranks the highest, ablest, and most scholarly talent in the nation. It directs and controls the chief matters of government, local and national: to the high and noble part of it is due much of the credit of our greater accomplishments as well as the lessening of the wrongs perpetrated

by the smaller but vicious minority. The influence of the press for good is incalculable; sometimes temporarily, it assists the bad.

When the real authority of the superintendent can be cloaked by the assistance of a Board membership that publicly assumes the responsibility of action, his path is less steep; rarely, however, can a Board be found but a part are quite willing to place upon the superintendent the onerous task of defense for what ought to be announced as the unanimous conclusion of the Board.

One great superintendent, Enoch A. Gastman of Decatur, Ill., was a notable example whose lot fell usually along the road of concord with the Board, at least so far as the community knew. His fifty years of tenure of office is an example of what a wise, prudent, conservative superintendent can accomplish with a united Board. I re-read his correspondence last night. Numerous instances of disagreement came to him, but he conquered by confining the knowledge of heated arguments to the Board's meetings. Enoch has just left us, leaving for our comfort the memory of a beautiful, true, and inimitable life.

I should like to write of the personal characteristics as they appeal to me of superintendents I have known; characteristics covering all attributes of men: as Audubon would have written of birds, from the nightingale to the eagle, finding admirable qualities in each, but no duplicates.

Wickersham, White, Calkins, Hancock, Soldan, Marble, Wells, Lane, Howland, Maxwell, Blodgett, Seaver, Cooley, Greenwood, Van Sickle, and Sabin are a few of the names whose lives are familiar and sweet to know.

What has been is most helpful as sentiment, but yet inspiration comes from contemplation. We are in the present; what can we do *now,* and what can we do for the future, is the chief purpose of life.

An old man's conclusions must be taken with a grain of reserve, advancing years are likely to emphasize the glories of the past wherein he was an active factor; he forgets that the young men of the present have, to the experience of the

old fellows, added the power and vigor of current knowledge and culture.

American school history invites review, but no living man can adequately write it; the view is too close at hand.

The schools of now are better than the schools of then, but the advances in teaching are scarcely comparable to those in other fields of activity.

We are profiting, incredibly, by the conclusions reached in the laboratory by students of science. From the tallow-dip to the convenient electric lamp; from the one-horse chaise, at a seven-mile-an-hour rate, to the twentieth century express and the trolley near the farm; from the letter by mail, at five cents postage and delayed delivery, to distribution en route and to rural delivery; from the confined and close-roomed home to the hygienically constructed dwelling with equable warmth, bath, and ventilation; from oral and written conversation to telephone transmission,—all lines of helpful activity have grown, both in quantity and in power. Every citizen, however humble be his station, participates in the progress and in the benefits.

The schools have progrest, more, however, in a physical than in a disciplinary direction. Schoolhouses are better, tho not always bettered by innovations promoted by zealous talent for material gain, or by theorists for experiment. Expensive and profitless changes are much in evidence: change and progress are not synonymous.

As an illustration one notices the demand for an adjustable seat (alas, rarely adjusted) made for the conservation of the natural human frame. The self-adjusting boy to whom Superintendent Marble once referred, was quite out of sight when this adjustableness met with compliance. One row of seats of varied height in the typical graded schoolrom is ample to provide for the few odd sizes of pupils.

The alarm caused by the danger of contracting disease from the common drinking-cup causes the careful, well-bred pupil to own either an individual cup with attending difficulty of permanent holding, and refusal to lend to a mate, or to refrain from drinking during the school day. And yet provision

has been made for quenching the pupils' thirst by permitting them to drink as all other animals drink: *ad libitum,* from fountains of pure running water. I have in mind a city school of 1,200 pupils, any one of whom when thirsty drinks from fountain bowls placed in the school-yard at convenient heights where pure water is constantly flowing. A boy will drink as the bird or colt drinks, comfortably and adequately, his lips only touching the water, just as we all drank from the brook on our fishing trips, only the elevated bowl relieves one of making the water run up hill as drinking from the brook did. The mentioned school thru the principal, whose office covers thirty years in the city, remains an advocate of watering the boys and girls at will. An abundance of pure water is ready on call, while one is unlikely to drink to excess.

Schoolhouses are often planned by the architect alone: the schoolmaster is not consulted. Perhaps his notions, if heeded, would interfere with architectural art or with the contractor's profits. Rarely does the practical schoolmaster of today inspect a modern schoolhouse without noticing errors in arrangement that need not have been made. The architect looks to architectural form and stability of construction; for convenience and effective operation, the schoolmaster is better informed, consequently competent counsel.

The expenditures for public free schooling, especially in the northern United States, amount to a vast sum; they are not as large as they ought to be, but the direction of the expenditures needs modification. Society can see and comprehend the money spent in beautiful and luxurious buildings, while the soul of the enterprise is buried from observation. The training of the heart and intellect—the chief purpose of free schools—needs to be more emphasized.

The value of an elementary education is not immediately apparent; the pupil recognizes that value not until he reaches adult age, when strenuous life finds many of the parents engrossed in material pursuits; little time or thought is given to child-life in school. The active American looks to public improvements that appeal to city pride, and pays liberally for schoolhouses; the workings of the school proper cease to re-

tain his attention. Italian marble for finishing closets, elegant furnishings, and beautiful and massive exteriors attract attention: the visitor listens to the words of pride and satisfaction from the host who shows the outside and inside of the house; the spirit that moves and acts within is beyond comprehension and notice.

From this condition arises an unintended, but nevertheless real neglect of the teaching force for the encouragement and maintenance of which the treasury is found to have been depleted by the cost of non-essential improvements. The school report of a city of 200,000 people for 1907 includes the statement of the per capita cost of schooling. In this one reads that $30.12 per annum was paid for a kindergarten pupil's, and $27.50 for a graded pupil's instruction; $2.62 more for his five-year-old baby sister than for the fourteen-year-old brother—a misdirection of expenditures.

Dollars now expended for externals of the schools should be diverted to the improvement of the school itself; the ranks of teachers, now so congested with women, should find lines of much needed men on duty, and the teaching and training power thereby strengthened, for men as well as women are needed in youthful association. Neither man nor woman is first in competent child training; both are as necessary in the school as in the home.

Villages can be found where, for the erection of a school palace, a bonded debt exists so large that the payment of the interest prevents the employment of a competent teaching force; the schools are officered by inferior talent because low-salaried. It is possible that the latter-day preeminence given to town ornamentation with beautiful and expensive buildings has caused a somewhat general notion that the schools of former days were better than those of the present; then, legitimate effort was concentrated on teaching, and exterior attractions did not obtain. But these schools were not better. At no time in our history have the teachers of the land been upon so high and effective a plane as now. The young men and women now in the teaching corps are better equipped and abler than were those of the last generation.

The supplanting of home by school is one of the latter-day conditions which, however deplored, is an evident feature of present-day life. It has come about, encouraged both by the home and school. The methods of the latter have been such as to interfere with home life to an unfortunate extent. Absence and tardiness, the control of which the school has assumed and the home has been driven to relinquish, has permitted the school to ask and insist upon replies to impudent inquiries.

Not only a general cause for absence in writing from the parent is demanded, but the tactless teacher insists upon knowing exactly why the pupil was absent. When the scared pupil tearfully confesses under pressure that "a new little brother has come," or "stayed home to have my shirt washed," or "father came home drunk and mother needed me," the school is over-reaching. The school asks that the regular meal hours be changed and the family routine demoralized, or the pupil take breakfast alone on the side in order not to be tardy. While many such misconnections are avoided by the tactful teacher, some are still following along the rigid lines, executing literally the "Rules of the Board," without freedom of judgment.

At the outset of the invasion of the home by the school, the average American citizen remonstrated. The popularity of the public school soon placed him in a state of submission unless it became possible for the pupil to be withdrawn and placed in a private school, where parental right had yet an acknowledged existence.

The school's invasion upon home control of children has been met more than halfway by the parents. Business on the part of the father, clubs and society with the mother, have caused many a sigh of relief to arise when the morning school hour arrived—a day of freedom from child-care was at hand, and a responsibility, for the time, removed.

This condition has come about so gradually as to have attracted little attention. At the Los Angeles National Education Association meeting in 1899, two papers were read upon the subject, but no comment followed.

The older schools were indeed tendered and given complete control of the child, but only during his hours in school. At all other times the home was the authority. The old-fashioned American home is of the past. Who shall say that its disappearance is an evidence of progress in social or political life?

The attitude of the old-time parent is illustrated by the following letter, written me in 1876, by an old-school gentleman and scholar, one who was eminent thru his long life, and whose memory is cherished as a notable character. The letter demonstrated how the parent felt then, and how he ought and probably does feel today. And yet, how many such requests have been refused under the legend "take the entire course as prescribed or fail to receive the diploma of graduation."

Denver, Colorado. Sept. 11-1876

A. Gove, Esq.,
High School.

I do not expect to have the courses of education changed to oblige me. Certainly not. And the object of this note is to ascertain if my son can pursue such studies as I wish him to follow and leave the others out? Thus, I do not wish him to study German or French.

If he has to take the whole course, "whether or no," I suppose I must submit until I can do otherwise.

I only want him to read, write, spell, in his own tongue and to have enough of mathematics to complete a useful education. I had seven years of Latin and Greek and the Exact Sciences and that is enough for one household.

My son is soon to take the world for himself and I wish to direct him in a business channel.

But for the everlasting work of a worn out attorney, I would go and see you as I should like to know you.

Yours truly.

To write fairly and justly of the immediate past is an undertaking nearly impossible of execution. The vision is blurred by environment and opinion.

One might write of the recurrent practises and reappearance of reforms, once tried and laid aside, to be resuscitated and again put thru the experimental mill.

The profession of law has, in ample libraries, written

history for reference; mistakes by the profession are avoided; the present profits by the past; experiments and results are a matter of record. Not so with pedagogics; no vast indexed and convenient libraries are at hand: experiment is repeated with the same necessary conclusion.

In the common schools, one remembers departmental instruction; the Grübe method; the misapplication of Herbart's philosophy, whereby the pupil is to make effort only when interested; freedom in the selection of tasks with voluntary application only required; abolition of formal movements about the schoolhouse, the outgoing and incoming to be like that at concert and church; increasing time appropriated to rehearsing and preparing for public displays; encouraging the press in publicity of individual school exercises; coddling the vanity of parents by pupils' spectacular public performances; decrease of memory training, forgetting Comenius, who wrote "the acquisition of knowledge depends upon memory"—many such practises, each one of which depends, not on principle, but upon the skill of the teacher, measures which, like the Quincy Plan, tho approved, to be profitable must be accompanied by the spirit and skill and inspiration of the master, and be a part of the innovation.

A picture of the whole field today gives pleasure, encouragement, and enthusiasm to him who looks. The best American manhood and womanhood is found in our schools. Impelled by desire to great accomplishment—the greatest and noblest in life—that of making virtuous and cultured men and women of the boys and girls in their care, thousands are active in the schoolrooms. Their opportunities are better than were ever before, with such equipment as our fathers never imagined; with pure hearts and cultured brains and vigorous characters and an intelligent and God-fearing Nation for promoter, one can predict for the future of our Country the highest prosperity and an enduring Government.

AARON GOVE

DENVER, COLO.

VIII

THE INTERNATIONAL COMMISSION ON THE TEACHING OF MATHEMATICS

At the fourth International Congress of Mathematicians, held at Rome in 1908, the following resolution was adopted: "The Congress, recognizing the importance of a comparative examination of the methods and plans of study of the instruction in mathematics in the secondary schools of the different nations, empowers Messrs. Klein, Greenhill, and Fehr to form an International Commission, to study these questions and present a general report to the next Congress."

The committee was in due time organized as follows: President, Geheimrath Professor F. Klein of Göttingen; Vice-president, Professor Sir George Greenhill of London; General Secretary, Professor H. Fehr of Geneva. These gentlemen began work at once and appointed as members of the Commission three representatives for each of the countries usually having delegates at the congresses, and one for each of the other countries of importance.

On account of the varied meanings assigned to the term "secondary schools" it was evident from the beginning that the investigation could not be limited to the courses given in institutions that would be called by this name in America. Indeed, such limitation would be undesirable from every point of view. It was therefore decided that the Commission should extend its work so as to include the whole field of mathematical instruction, from the lowest steps to the highest, or at least to the point where individual research definitely begins. This includes the work of the common schools, or indeed, in America, those from the primary grades thru the college, and it also includes the preparation of teachers for these schools, which runs at once into the work of the universities. Furthermore it includes the mathematical courses in the increasingly

large number of technical schools, trade schools, private schools, and professional institutions of various types, schools in which the sexes are more apt to be taught separately than is the case in the American public schools, and where traditional mathematics is giving place to something entirely new in most parts of the world.

The results of such an international investigation can not fail to be stimulating to the best that is in mathematics, and indeed to the best that is in education in general. It is not a body of professional reformers that is at work, but a body composed of practical teachers and of some of the best known of the world's mathematicians. It is the desire of this body to know exactly what is done today in the teaching of mathematics in all of the important countries of the world; to know if any countries are accomplishing exceptional results in a given time and under relatively the same conditions as obtain in other countries; to know how teachers are prepared to give instruction in mathematics in the high schools, for example, in France, and Italy, and Denmark; to know what general means are taken to give instruction in the subject in the universities of England, of Germany, and of Russia; to know the progress that is being made in answering the vext question of the best mathematics for the special types of school that are springing up all over this country as well as elsewhere, and to learn from others the effect of abandoning the rigid mathematics of the old school in favor of what many feel to be the sentimental mathematics that is now so often advocated. There is also the question of examinations that needs to be considered. What are the results of England's rigid system? of the examinations which France imposes upon those who would enter schools like the Ecole Normale Supérieure? of the college entrance examinations in our eastern states, as compared with the certification system? It is true that there is no unfailing unit of measure for results of this character, but after all some scientific results are obtainable, and even if they do not settle the issue, the world of mathematics will be benefited by knowing what they are. We have also certain influences tending to make better teachers of mathematics

that are somewhat peculiar to this country, and these it will be of interest to other countries to know. Such are some of our teachers' associations, our teachers' institutes, our systems of state inspection and supervision, some of our scientific societies and publications, and the often unappreciated but none the less valuable influence of publishers and their agents, an influence that is unknown in many parts of the world.

In order to set forth more clearly the exact purpose of the Commission, the following extract is made from the first preliminary report: The general plan of the work consists of two parts. Of these the first relates to the present state of the work and to the methods of mathematical instruction. Under this general topic are the following sections:

Section I. THE VARIOUS TYPES OF SCHOOLS.—In this first chapter will be given a concise exposition of the various public institutions of learning in which mathematical instruction is given and the aim of each school will be indicated. Schools for girls will be included.

The institutions will be distributed according to the following classification:

(a) Primary schools, lower and higher.

(b) Middle schools or higher secondary (lycées, German Gymnasiums and Realschulen, etc.).

(c) Middle professional schools (Technicums, etc.).

(d) Normal schools of the various grades (seminaries for teachers, "teachers' colleges," etc.).

(e) Higher institutions (universities and technical schools).

It is desirable that this exposition be accompanied by a schematic table giving a general view and making evident the succession and correspondence between the diverse establishments and indicating also the average age of the students.

Section II. AIM OF THE MATHEMATICAL INSTRUCTION AND OF THE SEPARATE BRANCHES.—This question will be studied for the various types of institutions mentioned above, taking into account, wherever necessary, applied mathematics, notably mechanics.

Not only does the aim of mathematical instruction vary necessarily in different institutions, but it has undergone some

transformations in the course of the last decade. It may be purely formal, or formal but taking account of intuition; it may also lay stress on logical development and the utilitarian side simultaneously, or else regard only the practical. On the other hand, the development of the memory may be the principal aim, or contrariwise the development of the mathematical faculties.

What are the branches of mathematics taught in the different types of schools? The time allotted to the branches should be indicated and the extent of the program. To what extent is attention paid to correlation among the mathematical branches and, if there is occasion, the correlation between these branches and applied mathematics (including mechanics) and physics?

Section III. THE EXAMINATIONS.—It is unquestionable that the system of examinations has a great influence on the method of instruction. The characteristics of the examinations in each category of schools should be concisely indicated, and particularly those which lead to "certificates of maturity," to "degrees," etc., and the examinations of candidates for teaching.

Section IV. THE METHODS OF TEACHING.—What are the methods used in the various institutions, from the primary schools to the higher institutions? Material of instruction; mathematical models; use of manuals, textbooks, collections of problems. Theoretical problems; problems taken from the applied sciences. Practical work.

Section V. PREPARATION OF CANDIDATES FOR TEACHING.—Here again are to be included the diverse types of schools, and there are to be indicated the requirements demanded by the school authorities: (a) with regard to theoretical preparation; (b) to professional preparation.

The second part relates to the modern tendencies in the teaching of mathematics, and is subdivided into the following sections:

Section I. MODERN IDEAS CONCERNING SCHOOL ORGANIZATION.—Reforms in studies. New types of schools. The question of coeducation of the two sexes.

Section II. Modern Tendencies Concerning the Aim of Instruction and of the Branches of Studies.

Aim of instruction.—New branches or new chapters to substitute for useless topics of study in the course, or those of secondary interest, but retained by pure tradition or by routine.

Section III. Examinations.—Projects for the transformation of the system of examinations or for their complete suppression.

Section IV. The Methods of Teaching.—Modern ideas concerning methods at different stages of instruction and in different types of schools. Correlation among mathematical branches. Relation between mathematics and other branches. Problems and practical applications; models and instruments. The use of manuals.

Section V. The Preparation of Teachers.—What are the conditions which a rational preparation of candidates for teaching should fulfil? How are the theoretic courses and the practical preparation to be organized?

The progress of teaching depends directly on the preparation of the teachers. This is a question of fundamental importance. The studies and the exigencies vary necessarily from one country to another; they depend much on the number of candidates and the facilities at hand in regard to education. Consequently the committee believes that it will be useful to take account of the reforms or the projects for reform which are now being considered with a view to bringing the training of teachers into conformity with modern conditions, not only for the personnel of primary and secondary schools but also for the university.

This inquiry should touch notably:

(a) The mathematical work required of candidates.

(b) Their introduction to scientific research.

(c) The best method of presenting theoretical and practical pedagogy (considered as the science of education).

(d) The question of the sex of the teacher in different school years.

(e) Questions concerning, for example, the time to be de-

voted to the history of mathematics, the history of the teaching of mathematics, the recreational side of mathematics, and general literature touching mathematical education. . . .

Emerson's oft-quoted remark that every man is my master in something and in that I may learn of him, is, it need hardly be said, eminently true in education, and in particular is it true in the teaching of mathematics. Our colleges have not much cause for over-contentment in the progress made in this subject in the past generation, and aside from the fact that our high school teachers are better educated than formerly, we have not progressed in any very marked degree in the development of education in the mathematical subjects in these institutions. It is well, therefore, that we heartily join the rest of the world in seeing just what we are all doing, not for the sake of attaining to uniformity, but for the sake of doing better the work that makes for our diversity. Uniformity is both unattainable and undesirable, but it is most desirable to know the best that our colleagues elsewhere are accomplishing.

The members of the Commission include some men who are sure to accomplish noteworthy results in this work. For many years Professor Klein has stood among the great mathematicians of the world, and of late he has been a prime mover in educational progress in Germany. With him are actively associated in this movement men like Professors Stäckel, Gutzmer, Schotten, Treutlein, and Schimmack, all of whom stand among the leaders in German mathematics or education. In Austria, Professors Czuber, Suppantschitsch, and Wirtinger are among the most active workers, and each one is well known wherever the teaching and progress of mathematics is understood. In France, Saint-Germain, Bourlet, Appell, Tannery, André, Borel, and Laisant are a few among the number who are carrying on the work, not to speak of others equally well known who are acting in an advisory capacity. In Italy, Castelnuovo, Enriques, and Scorza are three of the best known men in the field, and they form the Italian Commission. So it is with the various other countries; each is represented by men who are recognized as

leaders in their respective departments, and the result is an international body of great strength and of sound judgment. The work has already begun, not always in the same way in all countries, but always with the same purpose. The conditions not being identical, the plan of attack varies with the different countries, but everywhere the attack is being made with earnestness and with promise of good results.

In one respect the foreign countries have an advantage over us. In most of them a central bureau of education is more generously treated by the government than is the case in the United States, and therefore government aid is more readily secured. Germany, for example, at once appropriated ten thousand marks for carrying on the investigation in that country. Hungary followed with an appropriation of six thousand crowns. Other governments at once paid their subscriptions to the general fund and agreed to meet the expenses of their delegates, and in no case, so far as known, has there been a lack of financial and educational support of the movement abroad. In the United States the Commissioners were aware from the first that government support of this kind was out of the question. The United States Commissioner of Education, Dr. Brown, has offered all of the assistance possible, and has the success of the work very greatly at heart, but the funds of the Bureau are limited and the uses to which they can be applied are strictly circumscribed. It therefore becomes necessary to look elsewhere for the financial means for carrying on a work in which our educational reputation is in no slight degree at stake, and in which we have a national pride. With fifteen large committees and nearly sixty subcommittees at work, and with a vast amount of labor still to be done, it seems proper to appeal to the generosity of those who are most interested in educational progress of the highest type. The committees are closely connected with university work, many of their members or the members of the advisory council are on university faculties; the movement is international, which means that other nations will hold our universities responsible for the high character of the investigation, and it therefore seems most fitting that friends

of the corporations that form the Association of American Universities should assist in raising the small amount that each of these institutions might be glad to contribute to such a cause. If this could be undertaken at once the success of the investigation in the United States, and of the educational contribution of our country to the international cause, would be assured.

DAVID EUGENE SMITH

TEACHERS COLLEGE
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IX

THE AMERICAN COLLEGE UNDER FIRE[1]

Two distinct but converging lines of criticism appear to confuse the public mind as to the present position and value of the American college. The one proceeds from those serious-minded and constructive men, within college service or without it, who are jealous for the college and who are anxious promptly to meet and to solve each new problem as it arises, and so to keep the work of the college as nearly perfect as may be. The other is set in motion by the lapping waves of that presently popular tide whose yellow is, as the dictionaries have it, a token or symbol of jealousy, envy, melancholy. Probably thru inadvertence, the dictionaries omit to add the word ignorance.

This crude criticism of the baser sort may be first disposed of. Because ignorant, it is impertinent. Nevertheless, it reaches the public and measurably affects public opinion. One of the most important commercial discoveries of recent years is that, in our American democracy, attack upon the existing order and upon established institutions has a cash value. If it rises to unusual heights of shrill abuse, it is for the moment talked about, and, in so far, important. One thrifty, but hitherto unknown, person recently sold three articles to a confiding editor, the purport of which was that conspicuous teachers in American colleges did not teach their pupils things known not to be true, but did inculcate openness of mind and the habit of scientific inquiry. The business of the world went on without interruption.

Soon after, a presumably good bishop, turning for the moment from the faith once delivered unto the saints, announced

[1] Reprinted by permission from the New York *Evening Post*, September 25, 1909.

in stentorian tones that were heard by the newspapers from Maine to California, that he would as lief send a boy to hell as to one of the large American colleges. Within ten days the number of aspiring candidates for the alternative resting place had increased, we were told, by many hundred. At the Denver meeting of the National Education Association, in July last, one speaker was reported as saying that the colleges of the country were failures, that they exerted a ruinous influence on the secondary schools, and that they constantly did other sad and bad things. And so it goes, through a tiresome round of ignorance, misunderstanding, half-truth, malevolence, and sheer sensationalism. It is within the mark to say that from attacks of this kind no college teacher or college administrator has yet got any helpful suggestion whatever.

The line of criticism first named is, however, quite a different matter. It springs from what Matthew Arnold would have called the disinterested endeavor to learn and propagate the best that is known and thought about colleges and their work. It is in high degree helpful to the man at the wheel and it is usually constructive.

The truth of the matter appears to be that our time is one of transition and rapid change, and that the college finds itself perplexed and hard-put to keep adjusted both to its own standards and ideals and to the shifting social and educational tastes of the people. There are some things that the college can not do without stultification; there are other things that the college must do to live: these are the upper and the nether millstones. The advent of the American university, since 1876, has troubled the college not a little. The insistent and emphatic demand for vocational training has troubled the college still more. The college which is a member of a university—as at Columbia, Harvard, Yale, Cornell—finds its troubles taking one form; the separate college—as Williams, Amherst, Haverford, Hamilton—finds them taking another. The danger to the college of the first type is absorption in the university; the danger to the college of the second type is destruction by the university. Either result would be calamitous. Both the college in the university and the separate

college are justified in making an energetic struggle for existence.

To ape the methods and the aims of a university, even with some success, is not, however, to justify the claim to be a good and useful college. To travel on all fours with the vocational schools may avert extinction as an institution, but it is not the way to continue to exist as a college.

To put the matter bluntly, whenever there are no longer youths who are able and willing to spend a few years in laying the foundation for happy, useful, intelligent manhood by opening the mind, refining the manners, firing the imagination, and strengthening the morals thru living in a community of contemporaries, in contact with noble teachers and guides in the liberal arts and sciences, then the colleges may close their doors or allow themselves to be absorbed or destroyed by universities and vocational schools. At the same time a large part of the light of our nation's life will go out. But until that time comes—and may it not be earlier than the Greek Kalends!—the college has a place, a duty, and an opportunity.

Not all of those who tell the colleges what to do know their limitations and difficulties. In almost every case funds are lacking, even for the most obvious and necessary improvements. Moreover, colleges can not safely move singly and alone in policies that touch the public interest at many points. Much action in education must be concerted and harmonious to be effective. The men for any given job are not always easy to find, and, if found, they are not always easy to get. Large and complex bodies necessarily move slowly, and colleges move slowly, not only because they are, in a sense, large and complex, but because their task of training generous and enthusiastic youth to share in the intellectual life and the moral aspirations of the race is pretty well understood, has been pretty well understood for generations, and has not been made to appear in any very new light of late by the shifting fancies of superficial critics of colleges, of the intellectual life, and the moral aspirations of the race.

The most vexing problems of the college center about three phases of its work: its relations with the secondary schools, its instruction, and its discipline.

I. The relations of the college to the secondary schools are more satisfactory now than ever before, and are steadily becoming better still. The College Entrance Examination Board, now ten years old, has smoothed out many rough places, and has gained the strength and prestige to accomplish much more. Its membership now includes (I believe) every college that prescribes examinations for admission to the freshman class, except Princeton. It has standardized those examinations and brought order into a region once ruled by chaos. It has made it possible for secondary school teachers to have a share in formulating, conducting, and rating the examinations of pupils passing from school to college. It has quietly, but constantly, held before colleges the folly of insisting upon idiosyncrasies in college admission tests, and the wisdom of their agreeing together to state one and the same thing in one and the same way. The academic mind is peculiar, but not impregnable, and it is coming round in regard to all these matters.

The statements of the standard college admission requirements in English, French, and German have been much improved of late years, and that of physics has recently been made over in order to satisfy the demonstrated needs of the secondary schools. The statement of the requirement in history, although framed upon the recommendation of seven eminent men, is constantly criticized, and Mr. Frederick M. DeForest, in an article printed in the September number of the EDUCATIONAL REVIEW, states with conclusive force the bad effects of the present college entrance requirements in Latin. This last-named situation is so bad that steps are already being taken to improve it. In this respect, therefore, most colleges are doing what they can to meet the views of their wise and helpful critics.

II. College instruction has been having troubles of its own for two decades or more. Paradoxical as it may seem, the great enemy of good college teaching is the new, highly-

specialized scholarship. The colleges are plentifully supplied with distinguished men to whom the education of the young is either a lost art or a negligible quantity. Celestial mechanics or comparative philology or physical chemistry or medieval history or experimental psychology is the thing. These men are incomparable as guides in laboratory or seminar for the mature and self-knowing student; they are hopelessly at sea before the problem of a normal boy of seventeen or eighteen, fresh from school, who comes to college to get something of what wise men once thought it not silly to call general culture. The present-day college student is berated on every side because he prefers so many other things to scholarship. Surely, we should all be glad if he cared more for scholarship; but is he alone to blame? Is he being taught or lectured at? Is he being led or driven? Is he brought understandingly and with ample introductory explanation into a new subject, or is he hurled into it and left to flounder helplessly until, not comprehending, he turns from it in disgust? Is a prepared sequence of study, based upon his individual tastes and capacity, suggested and explained to him, or is he compelled to do something that he neither cares for nor understands, or permitted to do anything he chooses whether he cares for it and understands it or not?

The answers to these questions are, unfortunately, easy and obvious. That the present-day college student is not wholly careless of scholarship is shown by the zeal with which he pursues it when it is united with personality. College men of an older generation never tire of talking of Anderson of Rochester, of Wayland of Brown, of Hopkins of Williams, of Seelye of Amherst, of McCosh of Princeton, of Anthon and Lieber of Columbia, of Norton and Shaler of Harvard, of Hadley and Sumner of Yale, of Cooper of Rutgers, of North of Hamilton, of Canfield of Kansas, and a score more, *clara et venerabilia nomina.* Just so the student of today seeks strong and noble personalities among his teachers, is guided by them, and responds quickly to their stimulus, when he can find them. Of such, one may be permitted to mention George R. Carpenter of Columbia and Garman of Amherst

among the sadly early dead, and Fine of Princeton and King of Oberlin among the living. Rich personality and human sympathy and insight plus scholarship, is the formula for a great college teacher. Such an one will never lack for earnest students in large numbers, whether his courses be prescribed or elective. The problem of college instruction is solved when men of this type, even if their achievements and distinction be considerably less than the greatest, are found and put at work in the college service.

III. College discipline is feeling its way toward a new and higher effectiveness, based upon the community feeling and cooperation between teachers and taught in accomplishing the aims and purposes for which colleges exist. Rules of behavior are giving place to ideals of conduct. Student opinion, trusted with responsibility for the good name of a college, is showing itself strong and willing to protect it. Many things happen that one could wish otherwise, but college students are human beings, and immature human beings at that. Youthful exuberance is not hard to distinguish from moral obliquity. The crude and cruel practises of hazing, while still heard of occasionally, are much less frequent than they once were, and it is the improved tone of student opinion, even more than the strict prohibitions of college authorities, that is influential in bringing this about. The morals of undergraduates, while by no means beyond criticism or improvement, are far better than those of the world at large. No parent need worry unduly over the college life of any well brought-up son, unless, indeed, he is so lacking in sense as to provide the boy with a large allowance, a valet, a bulldog, and an automobile; but in that case, the parent must not blame the college. He is conspiring to the best of his poor, philistine ability against his son's getting any good out of college life, and is helping the boy get ready for a life of useless, perhaps vicious self-indulgence.

Good college teaching and good college discipline ought to work together to develop a pleasure and a satisfaction in intellectual labor for its own sake. To gain the habit of working with keen pleasure in one's work is an inestimable blessing,

and to train its students in that habit is a high purpose of the college.

Now and again some one criticizes the college because it does not fit men for practical life—meaning usually sweeping out an office, or using interest and discount tables, or selling dry goods. Fortunately, the college does not have any one of these or other like honorable occupations in mind when it plans its program of studies. It is concerned with the much more practical and useful task of forming men; real men, with the habits and interests of real men. That they know how to do this, and succeed in doing it, is amply proved by the history of a century. The list of rulers of England and of her colonies and dependencies reads like a roll of honor of the graduates of the colleges of Oxford and Cambridge. The history of American achievement in government, in commerce, in industry, and in finance would be amazingly curtailed if the work of college-bred men were cut out of it. At this moment Yale has a son in the Presidency of the United States, Brown a son in the Governorship of the State of New York, and Princeton a son in the mayor's chair in New York City. The graduates of the State universities are ruling the States of the West and are leading their development in every field.

The American college is under fire, no doubt. Well-directed, intelligent firing will do it good. It is far from perfect, but it knows its job and is working at it with the skill born of long and successful experience.

NICHOLAS MURRAY BUTLER

COLUMBIA UNIVERSITY

X

CURRENT EDUCATIONAL PUBLICATIONS [1]

Amante, Bruto. Nuovo codice scolastico vigente; leggi, decreti, regolamenti e programmi dal 1859 al 1909. ed. 2. Roma, Presso l'autore, 1909. 1559p. 4°.

American historical association. Committee of eight. The study of history in the elementary schools. Report to the Association. New York, Charles Scribner's sons, 1909. 141p. 8°.

Contains topical outlines of history courses for the eight grades, with material on the preparation of the teacher and method. This report, which is the product of a concerted effort to emerge from the hopeless diversity that characterizes our history teaching, has reached its present form thru much consideration and discussion.

Argentine Republic. Consejo nacional de educacion. La jura de la bandera; crónica de las ceremonias realizadas en los xiv distritos escolares de la capital, 8 de Julio de 1909. Buenos Aires, Est. tipografico El Comercio, 1909. 74p. 8°.

Bailey, Liberty Hyde. The training of farmers. New York, The Century co., 1909. 263p. 12°.

Barry, William Francis. The hygiene of the schoolroom. Rev. ed. New York, Boston [etc.] Silver, Burdett and company [1909] 195p. 12°.

Brown, Elmer Ellsworth. American standards in education and the world-standard. [New York, 1909] 24p. 8°.

Address of the vice-president and chairman of section L of the American association for the advancement of science, Baltimore, 1908. Reprinted from Science, n.s., 30: 418-427, October 1, 1909.

Cleveland. Board of education. The three R's; improvement in them; place in present course of study. Cleveland, Board of Education, 1909. 30p. 8°.

Report of superintendent of schools, W. H. Elson, to the Board of education.

Conference for education in Texas. Educational commission. First preliminary report. Austin, Tex., Austin printing company, 1909. 16p. 8°. Its Bulletin, No. 13.

Cook, George B., *State superintendent of public instruction.* Yearbook of school improvement in Arkansas. [Little Rock, 1909] 96p. 8°.

Curtis, Elnora Whitman. Out-door schools. [Worcester, Mass., 1909] 169-194p. 8°.

Reprinted from the Pedagogical seminary, 16: 169-194, June 1909.

[1] Compiled by John D. Wolcott, Acting Librarian of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

Davenport, Eugene. Education for efficiency; a discussion of certain phases of the problem of universal education, with special reference to academic ideals and methods. Boston, D. C. Heath & co., 1909. 184p. 12°.

Advocates industrial and agricultural training in the common schools.

Dufestel, L. Hygiène scolaire. Paris, O. Doin et fils, 1909. 417p. 12°.

Earhart, Lida B. Teaching children to study. Boston, New York and Chicago, Houghton Mifflin company [1909] xi, 181p. 12°. (Riverside educational monographs, ed. by H. Suzzallo)

Elford, Percy *and* **Heaton, Samuel.** Practical school gardening. Oxford, Clarendon press, 1909. 224p. 8°.

Felkin, F. W. From Gower street to Frognal; a short history of University college school from 1830 to 1907. London, Arnold Fairbairns & company ltd., 1909. 40p. 8°.

Firth, Charles Harding. The faculties and their powers, a contribution to the history of university organization. Oxford, B. H. Blackwell; [etc., etc.] 1909. 43p. 8°.

Hollembeak, Jessie Ryan. A history of the public schools of Stockton, California. [Stockton, Board of education] 1909. 173p. 12°.

Prepared for the Alaska-Yukon-Pacific exposition.

Illinois. Educational commission. Final report to the forty-sixth general assembly of the state. Springfield, Ill., Illinois state journal co., 1909. 272p. 8°.

Contains: 1. Recommendations of the Commission, p. 9-14. 2. The superintendent of public instruction, p. 15-30. 3. The state board of education, p. 31-54. 4. The county superintendent, p. 55-86. 5. County boards of education, p. 87-97. 6. Units of school organization, p. 98-116. 7. Township organization, p. 117-46. 8. The certification of teachers, p. 147-85. 9. County teachers' institutes, p. 186-213. 10. The purpose and value of the county teachers' institute, p. 214-34. 11. Salaries of teachers, p. 235-46. 12. Minimum salary legislation, p. 247-59.
Bibliographical references follow numbers 2, 4, 5, 8, 10, 12.

Ivins, Lester S. Agriculture in the public schools; a handbook for teachers. Lebanon, O., March brothers, 1909. 156p. 12°.

Johnson, R. Brimley. The Cambridge colleges. London, T. Werner Laurie [n.d.] 125p. 32°.

Kindermann, Carl. Die führer im modernen völkerleben, ihr grundcharakter, ihre erziehung, ihre aufgaben. Stuttgart, E. Ulmer [1909] 348p. 8°.

Lewis, Thomas Hamilton. Public education in Maryland; a study of its finances. Annapolis, Md., State board of education, 1909. 16p. 8°. (Maryland. Dept. of education. Quarterly bulletin, no. 1)

McMurry, Frank M. How to study and teaching how to study. Boston, New York and Chicago, Houghton Mifflin company, 1909. 324p. 8°.

An illuminating treatment of an important but hitherto neglected phase of education.

Maennel, B. Auxiliary education, the training of backward children; translated by Emma Sylvester. New York, Doubleday, Page & company, 1909. 267p. 8°.

A new translation of this standard work.

New England association of school superintendents. A report on the physical welfare of the public school child. May, 1909. Hartford, Conn., R. S. Peck & co., 1909. 43p. 8°.

Presented by a working committee consisting of Arthur Deerin Call, Hartford, chairman; Paul H. Hanus, Harvard university; Walter A. Ranger and Walter H. Small, Providence; Henry D. Hervey, Malden.

New York (State) Department of labor. 26th Annual report of the Bureau of labor statistics for the year ended Sept. 30, 1908. Part 1, Industrial training; a report on conditions in New York State, prepared by Charles R. Richards. Albany, State dept. of labor, 1909. 394p. 8°.

CONTENTS.—General summary.—Conditions of entrance and advancement in individual industries.—Attitude of labor unions toward industrial and trade schools.—Comments by employers on industrial training.—Rules and agreements of labor unions in regard to apprentices and helpers.—Laws of New York State relating to child labor, compulsory education, apprenticeship, and industrial education.—Institutions offering courses in industrial training in New York State.—Selected bibliography on industrial education.

O'Shea, Michael V. Social development and education. Boston, New York [etc.] Houghton Mifflin company [1909] xiv, 561p. 8°.

Part 1 attempts to describe and explain the typical attitudes which the child tends to assume towards the persons with whom he comes into contact in daily life, while Part 2 undertakes to outline a plan and method of education designed to make the individual socially efficient.

Palmer, George Herbert. Ethical and moral instruction in schools. Boston, New York [etc.] Houghton Mifflin company [1909] 54p. 12°. (Riverside educational monographs, ed. by H. Suzzallo)

Pruneda, Alfonso. Organization of the public school hygiene service in the federal district of Mexico. Paper presented to the American public health association, 37th annual meeting, Richmond, Va. Mexico, Tipografia economica, 1909. 22p. 7 pl. 8°.

Rowe, Stuart H. Habit-formation and the science of teaching. New York [etc.] Longmans, Green, and co., 1909. 308p. 8°.

"The design of this book is twofold: first, to present in scientific form the relation of habit to education; and secondly, to treat the subject of habit-formation in a way that will render practical assistance to the teacher, the supervisor, the parent, and the clergyman."—Pref. Bibliography, p. 287-300.

Taylor, William James. A syllabus of the history of education. Boston, D. C. Heath & co., 1909. 147p. 12°.

XI

DISCUSSION

FOOTBALL: A SPORT FOR GENTLEMEN AND A MORAL AGENT

To the Editor of the EDUCATIONAL REVIEW:

May a parent of a son soon to enter college ask you to print, for purposes of record, these following cuttings from responsible newspapers as a comment upon the outrageous utterances of demoralized and demoralizing college presidents and professors who, before cheering crowds of young barbarians, defend football as a sport for gentlemen and as a moral agent? S. E. D.

[From the New York *Herald*, October 31, 1909.]

FIGHTS ARE PLENTY ON FRANKLIN FIELD

PENNSYLVANIA TROUNCES INDIANS 29 TO 6 IN ROUGH AND TUMBLE VARIETY OF FOOTBALL

POLICE ARE CALLED TO AID

Waseuka, Indian Captain, Put Off for Slugging and Glenn Warner Sent from Side Lines

PHILADELPHIA, Pa., Saturday.—There were all sorts of excitement at Franklin Field today before Pennsylvania smothered the Indians 29 to 6. . . . Glenn Warner, the Indian coach, was ordered from the side lines to the bench and kept there by a big policeman. The Indians' captain, Waseuka, was sent from the field for slugging, and Fretz, of Pennsylvania, was also put out.

Incidentally there were several individual fist fights and a general free fight which for a time threatened to involve all the players and some of those on the side lines. . . .

The Indians were not only outplayed and outwitted, but they were outgamed. The near riot occurred after Penn had scored twice. Miller started on one of his famous runs, and a desperate attempt was made to get him. Near the side lines he made a lunge at a tackler and knocked the Indian down, though a second redskin got him and a third tried to avenge his team mate, who lay still on the ground, by jumping

on Miller. Several Quaker players ran to Miller's assistance and a free fight began. The substitutes left the bench to take a hand in the mêlée. Several policemen ran on the field, and with the aid of a few cool headed players the combatants were forced apart.

ORDERED OFF FIELD

Back on the field, however, Fretz and Waseuka started all over again, and Edwards promptly ordered both men from the game. Waseuka was reluctant to go, and was assisted by "Bill" Edwards. Here Glenn Warner took a hand and had a few words with the big umpire, which resulted in Edwards ordering him from the side lines. Warner refused to go, and Edwards called on the police to force the former Cornell star from the field.

Bemis Pierce, another Indian coach, who backed up Warner too strenuously, was also ordered from the side lines. Later Edwards discovered Pierce seated among the band and stopped the game until the Indian left the field.

NO HOPE FOR MIDSHIPMAN

Physicians Dare Not Operate on Football Player Hurt Two Weeks Ago

Annapolis, Md.—Midshipman Earl D. Wilson, quarterback of the Naval Academy team, was resting quietly this evening, though no hopes are entertained for his recovery. He was injured two weeks ago today in the game with Villanova, when he suffered a fracture of the fifth vertebra, and his condition has been such that physicians have not dared to operate upon him. His injury is, apparently, similar to that suffered today by Cadet Byrne in the West Point-Harvard game.

CHARGE DEATH TO FOOTBALL

Clinton Brown Kissam, a boy of fifteen, who was a student at the Mackenzie School at Tarrytown, died Friday night at the Dobbs Ferry Hospital from an injury to the spine resulting from excessive exercise. He was a member of one of the football teams of the school, and it is said his back was hurt in a game a week ago.

NINE-YEAR RECORD OF FOOTBALL CASUALITIES

	Killed	Injured
1909 (thus far)	2	10
1908	10	272
1907	15	166
1906	14	160
1905	24	200

	Killed	Injured
1904	14	296
1903	14	63
1902	15	106
1901	7	74

One of the injured in the season of this year, which has hardly begun, is Earl D. Wilson, quarterback of the team of the Naval Academy at Annapolis, for whose recovery no hope is entertained.

[From the New York *Sun*, October 31, 1909]

NECK BROKEN AT FOOTBALL

BYRNE OF ARMY TEAM HAS VERTEBRA FRACTURED

In Game Against Harvard at West Point Cadet Left Tackle is Caught in Scrimmage When Second Half is Nearly Over—Game Goes No Further.

WEST POINT, Oct. 30.—Eugene A. Byrne, left tackle of the Army football team, was severely hurt here this afternoon in the football game with the team from Harvard University. The sixth cervical vertebra, it is reported, was fractured. A late report was that his respiratory nerves were partly paralyzed. He regained consciousness some hours after the hurt and was said to be slightly improved. His recovery still is in doubt.

. . . . .

A forward pass had gained ten yards, carrying the ball into West Point territory, and rushing tactics were taken up.

There came a sharp, compact plunge against the left side of West Point's line in which Minot, the Harvard fullback, carried the ball. The play came at Byrne and he dived to stop it. From accounts given by those who were close enough to the tangle of men while the scrimmage was on Byrne missed the tackle and immediately afterward was down with the mass.

When the scrimmage untangled Byrne was stretched out on the ground. He couldn't rise when his fellow players went to his assistance, and Dr. Hanna of the army went out on the field to help him.

"I can't move," murmured the prostrate player. That was all he said, for in another moment he had sunk into unconsciousness. Other army doctors hurried out to take part in reviving the injured man, as well as Dr. Nicholls of Harvard, who has had lots of experience on the football field.

Byrne, it was found, was wholly paralyzed. The doctors set about inducing deeper respiration, as it was seen that the player was just breathing and little more. Dr. Hanna worked the player's arms back and forth, but with no encouraging response from the patient. Those in the stands could see that something serious had happened, for Byrne's face became gray as ashes. . . .

The spectators filed slowly out of the stands and down to the station. They had seen the worst accident that ever took place on the West Point football field and felt as if they had seen a tragedy. The report spread on the train coming to New York that Byrne was dead.

To a spectator who inquired about the injured cadet as he was being carried off the field one of the doctors replied that there was hope, that the patient seemed to be regaining consciousness. "We cannot tell at this time whether the injury will prove fatal or not," said Dr. Hanna.

GOPHERS WIN IN EASY STYLE

Stagg's Football Men Fail to Show Much Against Minnesota

Minneapolis, Oct. 30.—Minnesota defeated Chicago on Northrop Field today, 30 to 6. The Gophers outclassed Stagg's pupils in every point of the game. . . . Toward the end of the second half while running back a punt McGovern hurt his collarbone and had to be taken from the game.

PENN FRESH SCORE SIX POINTS

Philadelphia, Oct. 30.—In a loosely played game the Pennsylvania freshmen defeated the Syracuse freshmen this afternoon 6 to 0. . . . Mercer, the Pennsylvania star, had to retire from the game early in the first half owing to an injured knee and with his withdrawal the team lost much of its fighting spirit.

[From the New York *Times*, October 31, 1909]

SKULL FRACTURED IN FOOTBALL

Philadelphia, Oct. 30.—As the result of injuries received in a football game here this afternoon Michael Burke, 24 years old, is in a critical condition at a hospital. Burke was fullback on one of two scrub teams of the Pennsylvania Railroad Young Men's Christian Association and received a fracture of the skull in a scrimmage.

[From the New York *Sun*, November 1, 1909]

THREE FOOTBALL PLAYERS KILLED

Cadet Byrne Dies of His Broken Neck

Fatal Accidents Also in Games in Philadelphia and Kansas City—West Point Gives Up Football for the Season—Game Not Likely to be Forbidden

West Point, Oct. 31.—Cadet Eugene Byrne, who was injured in the Harvard-West Point football game yesterday, died at 6.35 o'clock this morning. From the time he was taken from the field until his death the

doctors kept Byrne alive by artificial respiration. The injury was diagnosed as a fracture of the second or third cervical vertebra, and the respiratory nerves were completely paralyzed. The cadet regained consciousness in the early hours of the morning and asked for a drink, but soon relapsed into unconsciousness from which he never rallied.

. . . . .

PHILADELPHIA, Oct. 31.—As a result of injuries received in a football game between Medico-Chi and the Philadelphia College of Pharmacy at the Pennsylvania R. R. Y. M. C. A. grounds, Michael Burke died in the Presbyterian Hospital early this morning.

Burke was playing tackle on the Medico-Chi team, and he was thrown heavily to the ground. He was carried off the field unconscious and removed to the hospital, where it was found that his skull was fractured.

. . . . .

KANSAS CITY, Oct. 31.—Roy Spybuck, 19 years old, an Indian football player of the second eleven of the Haskell School, died in St. Joseph's Hospital this afternoon of injuries received in a game at Buckner, Mo., yesterday afternoon. He played right tackle. Spybuck was out of the play when the ball was passed and when a Buckner man carrying the ball was tackled the Haskell tackle dived at the pile of men. He slipped and landed on his head. He was unconscious when taken from the field.

XII

REVIEWS

The study of nature—By SAMUEL C. SCHMUCKER. Philadelphia: J. B. Lippincott Co., 1908. 315 p. $1.25.

The study of nature is a book on nature-study for elementary schools, and aims to give the much needed help to teachers of this relatively new subject. Also, the book may well serve as a textbook for nature-study classes in training schools for teachers. The first and second chapters deal with the theory of nature-study and are in line with the best recent conceptions of the aims and scope of the subject. The third chapter, dealing with the real purpose of nature-study, emphasizes "the enrichment of life, the establishment of firm character, and a reverent attitude towards the great Power about us." The critical attitude which many teachers of science will take concerning such a statement of the purposes of nature-study is apparently appreciated by the author, for he hastens to say that, "Many there are who will say that the three purposes which are held before the teacher in this chapter are intangible and illusory; that they may be full of fine aspiration, but that they lack practicability." Following the third chapter are several very readable and practical chapters on the teacher's preparation, topics for study, and the management of nature-study in the schoolroom.

Part II has several excellent and helpful chapters on materials for nature-study. With the exception of a chapter on the heavens, only plants and animals are considered. This emphasis upon the biological aspect of nature-study is still most common in public schools, but the signs of the times indicate that physical nature-study will soon begin to come into its own. In a later outline given in this book there are frequent references to topics in physical nature-study.

The last section of the book deals with a course of study

arranged by grades and seasons. In general this is very similar to courses which other authors have planned. The addition of notes will make it vastly more useful than a mere outline.

It should be noted that, in many cases where interpretations of adaptation of plants and animals are concerned, the author's statements are out of line with the most recent critical biologists. He shows a tendency to ascribe a use or a purpose for everything rather than frankly stating that some structures may, from our human standpoint, appear to have a use which is not known to exist. Instances of such cases will be found in paragraphs 285, 286, and 337. Prickles on chestnut burs certainly appear defensive; but the romance of this interpretation is somewhat disturbed by the common observation that the burs open and discharge their nuts as soon as they are ripe and attractive to any self-respecting rodent. Moreover, the prickles are soft and not at all formidable weapons of defense during the long growing season when, according to the romantic theory, they should be serving as defending organs. There is no positive evidence that the prickles on normal burs ever serve any useful purpose in the line of protection against gnawing animals; and there is no justification for the assumption that because prickles and barbs mean defense against enemies, as viewed from the human standpoint, that therefore they must mean the same in the plant world. We must have critical observation applied to each case, rather than the application of a general theory; and the result will often be a confession of ignorance. The chestnut-bur case is one of thousands where the temptation is, for teachers of elementary-school nature-study and high-school biology, to jump to general conclusions without consideration of the observable facts. In teaching nature-study on a basis of observation the teacher needs to keep in mind Agassiz's saying, "Study to translate what actually exists; be courageous enough to say, 'I do not know,'" for many times lessons may lead into unsolved problems. A valuable part of the pupils' science training will be in learning that there are more things in heaven and earth than have been explained by modern science.

This advice is especially applicable when dealing with many of the fascinating cases of structural modifications which suggest adaptation to specific use.

This new book will do the greatest service in helping teachers and students to get acquainted with some of the most interesting facts concerning biological nature-study. It is especially important because the author has gleaned and brought together into one volume information which is so widely scattered in the popular natural history books as to be inaccessible to most teachers.

M. A. Bigelow

Teachers College
Columbia University

The movement of mathematical thought and the adaptation of the newer mathematical theory to the needs of instruction are well illustrated in *A treatise on the differential geometry of curves and surfaces,* by Professor L. P. Eisenhart of Princeton. The student of this work must possess a knowledge of the calculus, of differential equations, and of the elements of tri-dimensional coordinate geometry. We welcome a scholarly treatise of this kind for its indication that we are building up in America a serious body of advanced mathematical students in the universities. (Boston: Ginn & Co., 1909. 474 p. $4.50.)

Several teachers of English composition in the Sheffield Scientific School have united in the preparation of a book, entitled *English composition in theory and practice.* Their book presents some novel features, and brings together an exceptional chosen amount of illustrative material, much of it from contemporary writers, and, therefore, particularly useful for the student of today. (New York: The Macmillan Company, 1909. 402 p. $1.25.)

The latest number of the Riverside Educational Monographs is *Changing conceptions of education,* by Professor Cubberley of Stanford University. Professor Cubberley's succinct summary of the movement of educational thought will prove a useful guide to many of those students who are

perplexed by the attempt to reconcile the conflicting opinions of apparently equally competent authorities. (Boston: Houghton Mifflin Company, 1909. 72 p. 35 cents.)

We had occasion a few months ago to welcome a cheap and interesting edition of John Stuart Mill's *Autobiography*. We are now glad to welcome, with equal cordiality, a little volume entitled *Autobiography and selected essays by Huxley*. The book is edited by Miss Snell of Mt. Holyoke College, and, in addition to the autobiographical material, contains the well-known lecture on a piece of chalk and that on coral and coral reefs, together with that on two or three others. (Boston: Houghton Mifflin Company, 1909. 138 + xv p. 40 cents.)

The United States Bureau of Education, in its bulletin entitled *Teachers' professional library,* has rendered a distinct service in presenting a carefully selected list of 100 classified titles. Very few titles that one would expect to find in such a library are missing here. (Washington: Government Printing Office, 1909. 12 p.)

Superintendents and school officers generally will do well to obtain and study a copy of the pamphlet called *Preliminary report on simplified course of study,* submitted to the Board of Education at Cleveland, Ohio, by Superintendent Elson. It is a long time since any piece of school work of this kind has been done which seems to us so valuable and so suggestive. Superintendent Elson has rendered not only Cleveland, but the country, a service in making the studies upon which this report is based, and writing the report itself. (Cleveland, Ohio: Printed by the Board of Education, 1909. 40 p.)

Dr. Adam Leroy Jones shows that he is a good teacher in the selection and arrangement of his material in his new *Logic: inductive and deductive*. He has frankly made a textbook, and thereby has met a genuine need. It has been very difficult for earlier writers on logic to avoid the temptation to make critical contributions to epistemology. Dr. Jones has not done this, and his textbook will be all the more practical and useful in consequence. (New York: Henry Holt & Co., 1909. 304 p. $1.00 net.)

XIII

NOTES AND NEWS

William T. Harris

We hesitate to express our full sense of the world's loss in the death of William T. Harris lest we should not be understood. Dr. Harris died at his home in Providence, R. I., whither he had recently moved from Washington, on November 5 in the seventy-fifth year of his age. Perhaps one's first thought is that a dear and trusted friend has past away, or a distinguished former Commissioner of Education, or a great city superintendent of schools, or an author and editor of unusual distinction and influence. This would all be true, but it would be but a small part of the whole story. With the death of Dr. Harris, there came to its earthly end the activity of one of the greatest philosophical minds of modern times. Dr. Harris never held a formal academic post as a teacher of philosophy, but not all the academic teachers of philosophy that America has ever seen, taken together, began to equal him in power, in acumen, in profundity, or in skill in exposition. It is a misfortune for the general reputation of Dr. Harris that the fruits of his life-long philosophic thinking have not been put forth by him in systematic form, where they could stand, as they worthily might, by the side of the writings of a Kant or a Hegel. He chose rather to be a public teacher of the art of philosophic thinking, and to thousands and to tens of thousands of serious-minded Americans he long since became a leader and a guide. He illustrated, in countless ways and with amazing skill, the applications of the deepest philosophic insights of the race to the daily occupations and ambitions of modern men, as well as to the task of education, to the appreciation of art and of music, and to the interpretation of religion. Only those who were privileged to know Dr. Harris intimately and well can form any proper conception of the depth and breadth of his scholarship and of the habitual profundity of his thinking.

During the past two years, as his strength has slowly failed, he busied himself not less, but rather more, with philosophic problems. He had only a genial scorn for the fashionable and superficial philosophy of the day, and commented with grim humor upon the brilliant vagaries of Professor William James and the shallow infelicities of Mr. Schiller. Dr. Harris was so thoroly immersed in the current of the stream of historic thinking that he was not much concerned with the flotsam and jetsam of the moment. It is indeed a pity that so few can ever know how distinguished an ornament he was to his nation and his race.

Only a few days earlier, there died in Philadelphia at an advanced age, Mr. Henry C. Lea, for fifty years a tireless historical student and author of the first rank. Had Mr. Lea and Dr. Harris died within a few weeks of each other in England, in France, or in Germany, the whole people would have mourned the loss of their most brilliant representatives. In America, their passing from earth is indicated in a newspaper paragraph, and that is all. The boasted civilization of America has indeed very much yet to learn.

Meddlesome Legislation

We wish that legislators, teachers, and those miscellaneous busy-bodies who are so anxious to reform what they do not understand, would read, mark, learn, and inwardly digest these wise words from *The Dial:*

> That public education is the function of the State rather than of the municipality, is a principle that we have always maintained. The State is bound to see to it that thruout its area the means of education are provided upon as ample a scale as the general prosperity of the commonwealth makes advisable. The parsimony of the particular locality must not be permitted to keep its schools below the generally accepted standard, and the locality which would find it a real hardship to provide the needed support is entitled to assistance at the expense of more favored communities. On the other hand, the essentials being secured by law, the business of administration is distinctly a local affair, and it is in the last degree unwise for the State to prescribe matters of detail, or to interfere in questions that call for expert educational knowledge. The average legislature is about as well fitted to handle such delicate questions as it would be to regulate the circulation of books by public libraries or the scientific management of hospitals.

If we try to imagine the law of the State declaring that no library shall pay more than a dollar a volume for any of its books, or that the patients in every hospital shall be given fixt doses of certain specified drugs once a week, we shall have an exact parallel to the sort of educational legislation which is imposed with blithe and self-satisfied ignorance upon the hapless schools of many a town and city thruout this country. Thru the efforts of well-meaning people, whose judgment is as faulty as their intentions are good, a considerable number of our states have long been burdened with laws imposing upon their schools a cast-iron requirement concerning the teaching of physiology with reference to the use of alcohol and tobacco. The mischievous ingenuity of these laws is almost beyond belief. They demand that certain dogmas be enforced upon children with the most damnable iteration year after year,—dogmas that even a child's experience knows to be unsound; and they make it almost impossible for textbooks of physiology written in scientific language to be used in public schools. Men of science are practically unanimous in condemning these requirements, but the fanatics and doctrinaires have their way with the legislatures, and the voice of reason avails for nothing. Thus science is discredited, the canker of insincerity affects the teacher's work, and reasonable admonition against the evils of intemperance misses its opportunity altogether.

The Illinois legislature at its last session distinguished itself by imposing two singularly foolish laws upon the public schools of the State. One of these laws fixes a maximum price for every textbook used in the elementary schools; that is, it forbids the authorization of any textbook that the publishers do not offer to supply at or below the price thus specified. The other law imposes upon all the teachers in the State the obligation to devote a certain amount of time each week to the inculcation of ideas concerning the humane treatment of the lower animals.

Considering now the first of these amazing prescriptions, it is to be noted that the prices fixt are far below those at which the best books are obtainable. There is no reason to believe that the best books will be offered at the specified prices, for the simple reason that competition has already forced their prices to about as low a level as possible. Despite the "book trust" bogey that obsesses many minds, competition among school-book publishers has already made unreasonable prices a practical impossibility, and the margin of practicable reduction is a narrow one in most cases. The only possible effect of the law must then be to force the substitution of distinctly inferior books for many of those hitherto in use. Now to save the child a few cents in the price of one of his school books is as good an example of a penny-wise and pound-foolish policy as could well be imagined. It runs counter to the elementary truism that a textbook is a total, an instrument of precision, and that it has to be employed in one of the most delicate of the arts. A teacher who does not have the use of the best book available is like a railway engineer furnished with a cheap watch, a meteorological expert with a cheap barometer, or a violinist with a cheap fiddle. In these cases, the use of the inferior implement would be universally

recognized as an inconceivable folly; but in the case of the teacher, there seems to exist in many minds a notion that the implements he uses do not greatly matter. The making of textbooks is now comparable in refinement, in the nice fitting of means to ends, with the making of microscopes and chronometers, and the best of them would be cheap at almost any price. The injury done to education by debarring the best books from use is immeasurably greater than the benefit derived from the trifling economy that is thus effected.

Our second law, the one that makes humane instruction compulsory in all the Illinois schools, is a legislative "freak" which it is difficult to discuss seriously. All competent moralists are agreed that the one way *not* to be employed in developing the ethical instincts is the way of direct precept at stated periods. Yet in the present instance one particular sort of moral training is singled out, and is to be forced down the throats of all the young people at school in weekly doses of half-hour size (altho daily six-minute doses are considerately permitted as an alternative), and this process is to be continued *ad nauseam* from the kindergarten to the college. A plan better calculated to dull the moral consciousness and make the sympathies callous could hardly have been devised, and in the very name of the humanity which the misguided sponsors of this law seek to foster we enter our protest against it. Moreover, not content with securing its primary aim of universal instruction in this subject, the law makes the drastic requirement that the instruction shall be given by every teacher in every school supported by public taxation in the State, enforcing the requirement by the penalty of a heavy fine for non-compliance. This means that a weekly half-hour shall be devoted to the work in every elementary school, every high and normal school, and even (for the law makes no allowances) in the State University. It also makes teachers of all sorts, special teachers in all the high schools, teachers of singing and drawing and chemistry and gymnastics and geometry, amenable to the law and the penalty provided. Such a law, however unwise, is at least workable in an elementary school, where every teacher instructs the same group of children in a variety of subjects; but in its application to one of the higher schools it spells nothing less than chaos. Its absurdity is so manifest that we can not believe that it will long remain unrepealed, or at the very least unmodified in its terms. It is, in its existing form, a singularly vicious example of the sort of legislative tinkering with education that works mischief wherever it is attempted. And the worst of it is that it tends to bring into discredit one of the noblest objects of ethical endeavor.

Secondary Education in Agriculture

Mr. A. C. True, director of the office of Experiment Stations, has recently published, thru the Department of Agriculture, a paper full of information as to the present status of secondary education and agriculture in the United States. In 1897 there

were but ten agricultural high schools in the country, and the teaching of agriculture in normal schools and in public elementary schools had only just begun. Today there are reported to be sixty agricultural high schools, or agricultural courses of secondary grade in colleges, as well as 346 public high schools, 119 state or county normal schools, and 16 colleges, giving serious and definite training in agriculture.

Mr. True does not seem imprest with a tendency which has forced itself upon the attention of others, namely, that of agricultural schools and colleges to branch out into quite different fields, and to duplicate existing provisions for instruction in literary, scientific, and engineering subjects. There is a good deal of a problem here as yet unsolved.

Where is the American Public School?

The newspapers have not in a long time contained so revolting a story as the account of the lynching in Cairo, Ill., on November 11. One wonders what has become of the American public school and of its boasted training in citizenship and in moral responsibility. To the American public schools most, if not all, of the Cairo mob must have gone at some time or other as pupils. Probably the mayor of Cairo once attended a public school. It is hardly possible that he was taught there the principles or the point of view that enabled him to say in explanation and defense of the lynching: "The feeling against crime that has so long been suppressed has found vent, and I believe that Cairo will be peaceful and law-abiding hereafter." The way in which this noble and praiseworthy feeling against crime found vent is set forth in the following account published in the New York *Evening Post* of Friday, November 12:

> Many in the great mass of people had become impatient during the efforts to induce the man to make a statement, and there were demands for "work."
>
> "We don't want to hear him; string him up; kill him; burn him!" were frequently heard.
>
> The crowd pressed forward and the rope, thrown over the steel arch, which was in the hands of women, was pulled, and the body was jerked a few feet from the ground. Then the rope broke and the body came tumbling down. The mob by this time had become so impatient that they

fell upon the negro and riddled him with bullets. The body was dragged more than a mile thru the streets to the spot where the murder was committed and was burned.

Before the fire was started, which was ignited by a young woman, the negro's head was cut off and placed on one end of a pole, the other being stuck in the ground. The heart was taken out, cut up in small pieces, and passed among the men as souvenirs.

Pieces of the rope with which James had been hanged, after being soaked in the negro's blood, were also handed about as souvenirs.

This morning there is nothing left of the negro's body but a pile of bones. Large crowds of women are visiting the spot.

The lynching of Henry Salzner, the white man, for the murder of his wife on August 15 last, was a rebuke to delayed justice. The people asked for an immediate trial, and ever since the case was put off by the court, dissatisfaction has been universal.

Salzner's wife was able to state before she died that "He did it."

A great crowd of women were in the mob and they loudly called for Salzner's execution. His body was left lying in the street until morning, when it was claimed by his father.

Salzner begged piteously for his life, but he was greeted with jeers and blows. With the rope around his neck, he stated that his sister killed his wife, which so enraged the mob that they did not want to let him pray, but cooler heads prevailed and he was allowed a moment's respite.

No refinement of brutality and cruelty was lacking. Women were appropriately present in large and active numbers. Civilization was once more illustrated and justified by a great moral and spiritual outburst against crime. Truly the gods on Olympus have reason for their laughter as they look down on the desperate hypocrisies that so bring shame and disgrace on the people of the United States!

By the appointment of Professor David Snedden of Teachers College, Columbia University, to be Commissioner of Education for Massachusetts, that Commonwealth secures the services of a man who is one of the most competent students of school administration in the United States. Professor Snedden takes to his new post not only a well trained and scholarly mind, but no inconsiderable experience at home and abroad with problems of contemporary administration and development. He is the fourth member of the Columbia University faculties to be called within a short period to important executive posts, his predecessors having been President Wood-

ward of the Carnegie Institute, President Maclaurin of the Massachusetts Institute of Technology, and President Nichols of Dartmouth College.

From a querulous letter in *The Nation:*

> How is democracy to get the greatest good from learning and from highly trained minds? Can we, for example, build up a public sentiment like that which supported Mommsen in his famous fight with Bismarck, a sentiment which will guarantee the greatest possible freedom to the best thinkers?

Surely, the answer is not far to seek: Produce Mommsens!

As this number of the REVIEW goes to press we are advised that the place of meeting for the National Education Association in 1910 has not yet been chosen. For two months the Executive Committee and Secretary Shepard have been in vigorous daily negotiations with the representatives of the railroads, and, while the associations having terminals at the places most favored for the meeting are willing to make satisfactory terms, the Trunk Line Association, which blocked the holding of the semi-centennial meeting at Philadelphia in 1907, has again interposed and will not concur in the proposals of the lesser associations. Local enthusiasm at both Boston and San Francisco runs high, and either city would entertain the Association delightfully. It remains to be seen whether the railroads will permit the Association to meet at all, except as an assemblage of ordinary travelers.